

INTERDISCIPLINARY AND ENGAGED LEARNING  
FOR PREPARATION OF SUSTAINABLE DEVELOPMENT PROFESSIONALS  
CONCEPTS AND SELECTED OBSERVATIONS BASED ON THE CORNELL GLOBAL  
DEVELOPEMENT MODEL

A Thesis

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by

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*“Colleges and universities are historical institutions. They may suffer forgetfulness, or have selective recall, but ultimately heritage is the lifeblood of our campuses”.*  
—John Thelin, 2004, p. xiii

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*"Think globally, act locally." - David Brower*

## **ABSTRACT**

In the 21st century, the pursuit of sustainable development has become an urgent global mandate given the pressing issues of climate change, decreasing resources, social disparities, poverty, and environmental degradation. Meeting these complex challenges necessitates a new variety of professionals prepared with the knowledge, competencies, and mindset to drive sustainable transformation (Acosta Castellanos et al., 2021). This paper introduces the concept of interdisciplinary and engaged learning as a transformative strategy for preparing sustainable development practitioners.

Interdisciplinary education transcends conventional boundaries, fostering a comprehensive grasp of complicated issues. Sustainable development inherently demands the amalgamation of diverse domains like environmental science, economics, sociology, policy analysis, and ethics. Interdisciplinary learning environments enable students to bridge the gaps between disciplines, enabling a holistic perspective on sustainability. Engaged learning goes beyond theory and encourages active participation in addressing real-world difficulties (Liu et al., 2002). Sustainable development professionals must excel at translating knowledge into action, collaborating with diverse stakeholders, and enacting change on the ground. Engaged learning practices, including internships, fieldwork, community partnerships, and problem-based projects, equip students with practical skills and a sense of agency to contribute meaningfully to sustainability objectives.

This paper explores the symbiotic relationship between interdisciplinary and engaged learning as preparation for development practice. Interdisciplinary approaches furnish the intellectual framework for comprehending development challenges, while engaged learning opportunities provide platforms for applying this knowledge in real-world contexts. This interaction promotes

critical thinking, creativity, adaptability, and empathy—vital activities and traits for professionals navigating the complex, ever-evolving scene of sustainable development. This paper uses document review and interviews to gain insights into history, mission and program design rationale of the Cornell University Masters of Professional Studies (MPS) in Global Development program. This paper underscores the positive outcomes of interdisciplinary and engaged learning in preparing sustainable development professionals. It emphasizes the significance of promoting a culture of curiosity, continuous learning, and open discourse among students, faculty, and practitioners.

In conclusion, the paper underscores the pivotal role of interdisciplinary and engaged learning in shaping the future generation of sustainable development experts. By embracing these approaches, higher education institutions can empower students to become catalysts for change, equipped to tackle the multifaceted challenges of sustainability with competence, creativity, and compassion, thereby becoming fervent advocates for positive transformation.

*“The best way to predict the future is to create it”.*  
*Martin Pio*

## **BIOGRAPHICAL SKETCH**

Martin Faki is a graduate of the Master of Professional Studies in Global Development program at Cornell University in the United States. He boasts over twelve years of development-related experience and has dedicated his career to teaching and working in collaborating with both national and international NGOs in South Sudan. His work has involved partnerships with prominent international organizations including IOM, WFP, USAID, UNDP, FAO, IADC, and UNICEF. Before joining Cornell, Martin served as an Education Project Officer at the Education Foundation Organization in South Sudan. In this role, he focused on enhancing access to education and social services, prioritizing the well-being of the community.

Martin's professional background also includes a role as a Teaching Assistant at the University of Bahr Ghazal in the Department of Rural Development. Additionally, he contributed to the development of small businesses in South Sudan by serving as a mentor. Martin earned an honors degree in Community Studies and Rural Development, specializing in Social Work from the University of Juba's Department of Community Studies.

## DEDICATION

In loving memory of my cherished father, the late **Mr. Pio John Faki**, whose enduring wisdom and love serve as a perpetual source of inspiration. Although you are no longer present physically, your spirit and values resonate in every word within these pages.

A heartfelt tribute also goes to my dear mother, **Lina Marko Juma**, whose strength and guidance have played a pivotal role in shaping the person I am today.

With profound love and gratitude,

Beloved Son, Martin

*"No one who achieves success does so without acknowledging the help of others."  
- Alfred North Whitehead*

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I humbly acknowledge the grace of Almighty God, who has bestowed upon me the strength, knowledge, ability, and opportunity to embark on this research study. Without His guidance and mercy, the realization of this research and the pursuit of my daily endeavors would have been unattainable. **To God be the Glory!**

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## **LIST OF ABBREVIATIONS**

ALS: Agriculture & Life Science.

BS: Bachelor of Science.

CALS: College of Agriculture and Life Sciences.

CGDM: Cornell Global Development Models.

CGDP: Cornell Global Development Practice.

CIIFAD: Cornell International Institute of Food, Agriculture, and Development.

CSOs: Civil Society Organizations.

DAESD: Decade of Action for Education in Sustainable Development.

DGS: Director of Graduate Studies.

ED: Education for Sustainable Development.

ESD: Education for Sustainable Development.

FAO: Food and Agriculture Organization.

FERPA: Family Educational Rights and Privacy Act.

FGSS: Feminist, Gender & Sexuality Studies.

GDVE: Global Development.

GFA: Graduate Field Assistant.

HIEP: High Impact Educational Practices.

IADC: Italian Agency for Development and Cooperation.

IAD: Institute of African Development.

IAEA: International Atomic Energy Agency.

IARD: International Agriculture and Rural Development.

IOM: International Organization for Migration.

MDP: Master of Development Practice.

MPS: Master of Professional Studies.

NGOs: Non-Governmental Organizations.

OPPEL: Office of Professional Programs and Engaged Learning.

PhD: Doctoral Program.

PMP: Professional Master's Programs.

SD: Sustainable Development.

SDGs: Sustainable Development Goals.

SGE: Sustainable Global Enterprise.

SMART: Student Multidisciplinary Applied Research Team.

UIC: University-Industry Collaborations.

UNDP: United Nations Development Programme.

UNESCO: United Nations Educational, Scientific and Cultural Organization.

UNICEF: United Nations International Children's Emergency Fund.

USAID: United States Agency for International Development.

WFP: World Food Programme.

*“We make our own history. The course of history is directed by the choices we make and our choices grow out of the ideas, the beliefs, the values, the dreams of the people. It is not so much the powerful leaders that determine our destiny as the much more powerful influence of the combined voice of the people themselves”.*

*Eleanor Roosevelt*

## PREFACE

Interdisciplinary education pitched towards sustainable development had its origins in the 1970s and 1980s through the emergence of environmental studies programs. Over time, these programs evolved to encompass not only environmental concerns but also issues related to social equity, economic development, and environmental protection.

This approach to education and engaged learning for the preparation of sustainable development professionals offers a diverse array of courses that blend knowledge from multiple disciplines. Through these courses, students and practitioners acquire practical skills vital for tackling development challenges in real-world scenarios. Additionally, they actively engage with communities and stakeholders, applying their acquired knowledge to create meaningful impact.

The overarching goal of interdisciplinary education and engaged learning in the context of preparing sustainable development professionals is to nurture the next generation of experts in this field. By its nature, sustainable development demands a comprehensive and integrated approach that transcends traditional disciplinary boundaries.

Nevertheless, a number of persistent challenges continue to impede the effectiveness of interdisciplinary education and development practice in this realm. For instance, there remains a dearth of standardized frameworks or guidelines for interdisciplinary education within the context of sustainable development. Furthermore, limited collaboration and communication among the various disciplines involved in interdisciplinary programs hinder a holistic understanding of the intricate sustainability issues at hand and impede the development of innovative solutions.

*"The only limit to our realization of tomorrow will be our doubts of today."  
-Franklin D. Roosevelt.*

## **CHAPTER ONE**

### **1. Introduction**

Today's world is characterized by globalization. Global capital flows reflect opportunities for financial returns, often with little regard for environmental impacts or social consequences. The predominant global development model is based on excessive consumption by those who can pay, and scarcity for those who cannot. Natural resources, often the primary asset for communities and regions disadvantaged by the dominant economic development model, have not been the priority. New, more just and innovative development approaches will require a new generation of development professionals to imagine and create the policy, planning and development practice innovations for a fairer and more sustainable world. Higher education programs play a critical role in creating and disseminating knowledge and foster practical skill training for development professionals.

"Education for sustainable development" (ESD) refers to a restructuring approach to teaching in higher education institutions, focused on active learning and critical thinking, which motivates students to acquire knowledge, skills, strategies, and methodologies to forge a sustainable future. Higher education must train students in all fields of research and innovative technological designs that are friendly to the environment, to increase quality education and the levels of SD (Finnveden et al., 2020).

The following three questions can help to establish the state of Interdisciplinary Education and engaged learning for sustainability practice.

**Q.1: How can interdisciplinary education contribute to the preparation of sustainable development professionals?**

- This question aims to investigate the specific ways in which interdisciplinary education, as implemented in programs like the Cornell University Masters of Professional Studies (MPS) in Global Development, enhances the knowledge, competencies, and mindset of students preparing for sustainable development roles.

**Q.2: What role does engaged learning play in enhancing the skills of future sustainable practitioners?**

- This question seeks to explore the impact of engaged learning practices, such as internships, fieldwork, community partnerships, and problem-based projects, on the development of practical skills, critical thinking, creativity, adaptability, and empathy among students pursuing careers in sustainable development.

**Q.3: How do universities integrate transversal human competencies in their curricula, incorporating Interdisciplinary Education for Sustainable Development into these processes?**

- This question delves into the strategies and approaches employed by universities, specifically focusing on the Cornell University MPS in Global Development program, to integrate transversal human competencies into their curricula. It aims to understand how these competencies are woven into the interdisciplinary education framework and engaged learning activities.

These research questions focus on exploring the specific contributions and effectiveness of interdisciplinary education and engaged learning within the context of the Cornell University MPS in Global Development program. They aim to investigate the intersection of theory and practice, the development of practical skills, and the integration of transversal competencies in preparing sustainable development professionals.

## **1.2. Objectives of the Study**

This research explores interdisciplinary education and engaged learning in the context of the Masters of Professional Studies (MPS) in Global Development program at Cornell University. It underscores the essential role played by interdisciplinary education and engaged learning in professional education for early and mid-career development professionals. Additionally, the study examines the effort to foster interdisciplinarity within the very flexible curriculum of the Global Development program.

It is hoped that the findings of this investigation can inform efforts of other higher education institutions to design or strengthen their own practice-oriented education programs related to development by examining the experience of Cornell University's MPS Global Development program as well as the network of universities offering Master of Development Practice (MDP) degrees. Program enhancements derived through critical examination of these established programs will lead to a future generation of development professionals better prepared for tackling pressing issues related to sustainable development, including environmental deterioration, extreme poverty, gender inequality, human rights violations, unsustainable corporate practices, and inadequate access to clean water and sanitation.

This study encompasses secondary data sources and employs direct and indirect data collection methods.

The central theme of this thesis revolves around emphasizing the significance of interdisciplinary education and engaged learning practices in addressing the intricate challenges associated with sustainable development. This approach fosters interdisciplinary cooperation, encourages innovative problem-solving, and facilitates a holistic comprehension of the social, economic, and environmental dimensions of sustainability.

### **1.3. The Significance of the Study**

The significance of this study lies in its exploration of the symbiotic relationship between interdisciplinary education and engaged learning in the context of preparing sustainable development professionals. In the face of urgent global challenges such as climate change, resource depletion, social disparities, and environmental degradation, the study addresses the crucial need for a new generation of professionals equipped with the knowledge, competencies, and mindset required for driving sustainable transformation. The study emphasizes the contemporary demand for professionals capable of transcending conventional disciplinary boundaries. By investigating the Cornell University Masters of Professional Studies (MPS) in Global Development program, the research aims to uncover insights into the positive outcomes of interdisciplinary and engaged learning. The identified outcomes include the development of critical thinking, creativity, adaptability, and empathy – essential attributes for navigating the complex and ever-evolving landscape of sustainable development. Furthermore, the study advocates for the promotion of a culture of curiosity, continuous learning, and open discourse among students, faculty, and practitioners. It positions interdisciplinary and engaged learning as pivotal tools for shaping a future generation of sustainable development experts who can act as catalysts for positive transformation.

### **1.4. Scope and Limitation of the study**

#### **1.4.1. Scope of the Study**

This study focuses primarily on how interdisciplinary education and engaged learning constitute defining elements of the Cornell University MPS in Global Development program. It seeks to understand how these approaches contribute to the preparation of sustainable development professionals, focusing on the program's history, mission, and program design rationale. The study

also aims to identify and highlight positive outcomes, emphasizing the significance of fostering a culture of curiosity and continuous learning.

#### **1.4.2. Limitation of the Study**

While the study endeavors to provide valuable insights, certain limitations exist. These limitations include the primary focus on a single university's professional master's program. This paper does not fully represent the diverse ways that interdisciplinary and engaged learning are integrated into development-oriented professional master's programs globally. Additionally, the study's scope has been constrained by time and resource limitations, impacting the depth of the investigation. It is crucial to acknowledge these limitations to ensure a nuanced interpretation of the findings.

#### **1.5. Research Methodology**

This research relies on secondary data sources. It involves gathering information from diverse sources including books, pamphlets, manuals, survey/research data, magazines, document reviews, observations, curriculums and course assessment and online resources. Through the incorporation of these varied data collection technique, the study aims to establish a vigorous foundation for exploring the ways in which interdisciplinary education and engaged learning are defining characteristics of the Master of Professional Studies (MPS) in Global Development program at Cornell University.

#### **1.6. Expected Outcomes**

The research aims to provide a comprehensive understanding of how interdisciplinary education and engaged learning contribute to the preparation of sustainable development professionals within the context of the Cornell University MPS in Global Development program. The outcomes of the study will inform higher education institutions on effective practices for designing and implementing practice-oriented education programs related to development. The findings will also

contribute to the ongoing discussion on the role of education in addressing global challenges and fostering sustainable development.

## **1.7. Organizational Structure of the Capstone**

The structure of this Capstone project is outlined as follows:

**Chapter One: Introduction** Chapter one serves as the introductory section, offering insights into the historical background and presenting the problem statement. It articulates the study's objectives and underscores its significance. This chapter further justifies the research, provides an overview of the methodology, delineates the techniques of data collection, discusses the organization of the Capstone, identifies scope and limitations, expected outcome and presents the thesis statement.

**Chapter Two: Literature Review:** Chapter two is a brief review of literature pertaining to the concepts of sustainable development, and the role of interdisciplinary and engaged learning in the preparation of development professionals.

**Chapter Three: “Key Stakeholders and Their Role in Interdisciplinary Education and Engaged Learning Programs”:** Chapter four delves into the identification and analysis of key stakeholders in interdisciplinary education and engaged learning programs. It explores the roles these stakeholders play in facilitating effective sustainable development initiatives.

**Chapter Four: “The Cornell Global Development Practice (CGDP) Model”:** Chapter five provides a detailed description of the Cornell Global Development Practice (CGDP) Model. This model serves as a case study or exemplar in demonstrating how interdisciplinary education and engaged learning are applied in practice for sustainable development.

**Chapter Five:** This chapter encompasses the exploration of findings, discussions, identification of limitations encountered throughout the research process, and the formulation of recommendations. The final chapter specifically investigates these elements, providing insights

into the outcomes, engaging in discussions, acknowledging limitations, and proposing recommendations for future research or programmatic enhancements, and ultimately concluding the Capstone project paper.

### **1.7. Thesis Statement**

The thesis statement of this research underscores the critical importance of interdisciplinary education and engaged learning in preparing individuals, both students and practitioners, to tackle the multifaceted challenges of sustainable development. These approaches foster interdisciplinary collaboration, promote innovative solutions, and cultivate a general understanding of the social, economic, and environmental dimensions of sustainable development.

*“Our vision is a world in which there are many opportunities to learn about sustainable development. A world where a skilled population makes informed decisions in their home, community and working lives and in their leisure activities. A world where people understand and take responsibility for the impact they have on the quality of life of other people, locally and globally”. (Sustainable Development Education Panel 1999, p.11)*

## CHAPTER TWO: LITERATURE REVIEW

### 2.1. Theoretical Framework and Conceptualization Analysis

#### 2.1.1. Understanding Sustainable development

Sustainable development is a core concept that aims to attain human development goals while simultaneously ensuring the continuous provision of vital resources and ecosystem services. The 1987 Brundtland Report defines it as “the pursuit of development that meets current needs without threatening the ability of future generations to meet their own requirements”. This concept promotes economic and social advancement, particularly for those with lower living standards, while underscoring the significance of protecting the environment and natural resources<sup>1</sup>. Sustainable development is seen as an ongoing journey rather than a final destination, striving to strike a balance between economic growth, environmental conservation, and social well-being. It involves persistent endeavors to attain economic efficiency, social equity, and ecological stability, taking into account the welfare of all individuals and the globe, calling for a delicate balance between economic, social, and environmental constraints facing society<sup>2</sup>. Despite facing criticism, sustainable development provides a valuable approach to make well-informed decisions that tackle challenges without compromising our quality of life. Furthermore, it can yield various short- to medium-term benefits, including cost savings and enhanced efficiency. It constitutes a dynamic process that aligns human development with the preservation of natural systems, while

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<sup>1</sup> Shabana Mehmood Kazi and Saltanat M Kazi, “Understanding Sustainable Development,” n.d.

<sup>2</sup> Justice Mensah, “Sustainable Development: Meaning, History, Principles, Pillars, and Implications for Human Action: Literature Review,” ed. Sandra Ricart Casadevall, *Cogent Social Sciences* 5, no. 1 (January 1, 2019): 1653531, <https://doi.org/10.1080/23311886.2019.1653531>.

harmonizing economic, environmental, and social considerations, thus offering a framework for improved decision-making<sup>3</sup>.

### **2.1.2. Interdisciplinary Education and Engaged Learning**

Interdisciplinary education and engaged learning are intricately intertwined ideas, as they both revolve around the synthesis of methodologies and analytical perspectives from diverse academic domains to delve into a central theme, issue, question, or topic. Interdisciplinary education builds upon the foundational knowledge of various disciplines to investigate subjects, yet it takes an additional step by assimilating insights from pertinent fields, merging their contributions to enhance understanding, and fusing these concepts into a more comprehensive and ideally unified analytical framework<sup>4</sup>. In contrast, Engaged Learning represents a pedagogical and learning approach that places emphasis on active and collaborative learning, encouraging students to apply their acquired knowledge and skills to real-world dilemmas and challenges<sup>5</sup>. Researchers highlight the significance of Interdisciplinary Education and Education for Sustainable Development (ESD) in enhancing learners' interdisciplinary and sustainability skills, with universities using interdisciplinary methods to teach sustainability across various disciplines. Higher education is increasingly emphasizing sustainability competencies and harnessing students' innovative potential for sustainable development, recognizing the importance of innovative ideas in advancing sustainability goals. It's essential to acknowledge that interdisciplinary education differs from traditional teaching, requiring additional time and effort from both students and teachers while fostering an open-minded approach to learning. The advantages include the development of

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<sup>3</sup> “Governing for the Future: The Opportunities for Mainstreaming Sustainable Development,” n.d.

<sup>4</sup> Ronald A Styron, “Interdisciplinary Education: A Reflection of the Real World” 11, no. 9 (2013).

<sup>5</sup> Faculty of Education, Pamukkale University, Denizli, Turkey and Ahmet Kanmaz, “A Study on Interdisciplinary Teaching Practices: Primary and Secondary Education Curricula,” *African Educational Research Journal* 10, no. 2 (June 24, 2022): 200–210, <https://doi.org/10.30918/AERJ.102.22.032>.

diverse skills, cognitive abilities, critical and creative thinking, and objective analysis, resulting in well-rounded individuals. Moreover, interdisciplinary education and engaged learning are crucial in shaping sustainability professionals, as universities align their curricula with the imperative of sustainable development <sup>6</sup>.

## **2.2. Integration of Sustainable Development Goals into Education and Community Service**

Integrating the Sustainable Development Goals (SDGs) into education and community service is vital for promoting global sustainability. The SDGs offer a roadmap for sustainable development, with Goal 4 highlighting the significance of quality education. Education for Sustainable Development (ESD) plays a crucial role in achieving these goals and has been recognized by the United Nations for its importance even before the SDGs were established. To advance ESD, a comprehensive approach is needed, including reorienting education toward sustainability, raising public awareness, and providing training support. The United Nations launched the Decade of Action for Education in Sustainable Development (DESD) from 2005-2014, with UNESCO leading its implementation. The primary objective was to incorporate sustainability principles into all areas of learning and provide guidance for integration <sup>7</sup>.

By integrating the SDGs into educational systems, ESD becomes a dynamic concept empowering individuals of all ages to take responsibility for creating a sustainable future. This approach fosters the development of global citizens who actively seek and implement solutions to global sustainability challenges. Successful ESD programs should be integrated into the curriculum,

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<sup>6</sup> Jennifer Culhane et al., “Exploring the Intersections of Interdisciplinary Teaching, Experiential Learning, and Community Engagement: A Case Study of Service Learning in Practice,” n.d.

<sup>7</sup> Ángela Amorós Molina et al., “Integrating the United Nations Sustainable Development Goals into Higher Education Globally: A Scoping Review,” *Global Health Action* 16, no. 1 (December 31, 2023): 2190649, <https://doi.org/10.1080/16549716.2023.2190649>.

taught from an interdisciplinary perspective, rooted in sustainable development principles, encourage analytical reasoning and solution-based thinking, use various teaching formats, involve students in decision-making, address both local and global issues, and consider short, medium, and long-term challenges <sup>8</sup>.

Higher education institutions are adopting various methods to infuse sustainability into education. High Impact Educational Practices (HIEP) are becoming popular for integrating sustainable development into learning. These practices employ active teaching methods that enhance students' academic and skill capabilities, leading to deeper learning. One effective way to integrate the SDGs into education and community development is through community development projects. When implemented in higher education, this approach is likely to yield positive outcomes in advancing the achievement of the SDGs by 2030 and beyond <sup>9</sup>.

### **2.3. Educational Approaches for Interdisciplinary Education and Engaged Learning**

Interdisciplinary education blends various subjects to foster innovative thinking and tackle intricate issues. This method enhances learning by encouraging students to grapple with multifaceted challenges, promoting critical thinking. To implement interdisciplinary teaching effectively, educators must exemplify interdisciplinary problem-solving, as traditional discipline-based learning is the norm. Students may be unfamiliar with integrating insights from different fields into a comprehensive analytical framework. Best practices for interdisciplinary education include:

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<sup>8</sup> Jing Liu, Yuki Watabe, and Taketoshi Goto, "Integrating Sustainability Themes for Enhancing Interdisciplinarity: A Case Study of a Comprehensive Research University in Japan," *Asia Pacific Education Review* 23, no. 4 (December 2022): 695–710, <https://doi.org/10.1007/s12564-022-09788-z>.

<sup>9</sup> Mirjam Braßler and Martin Schultze, "Students' Innovation in Education for Sustainable Development—A Longitudinal Study on Interdisciplinary vs. Monodisciplinary Learning," *Sustainability* 13, no. 3 (January 27, 2021): 1322, <https://doi.org/10.3390/su13031322>.

- a) **Establish a Unifying Theme or Objective:** The primary step in formulating an interdisciplinary teaching strategy is to identify a common theme or objective that bridges the various disciplines involved. This theme can be broad, like sustainability, health, or social justice, or specific, such as climate change, poverty, or racism. It should be meaningful, authentic, and inspiring for both students and instructors, allowing for multiple perspectives and approaches.
- b) **Familiarize Students with Interdisciplinary Approaches:** Clarify to students the essence of interdisciplinary education as distinct from discipline-based learning. Emphasize the importance of amalgamating insights and methodologies from diverse disciplines to construct a comprehensive analytical framework for addressing intricate questions. Ensure that you will be exemplifying how to approach issues in an interdisciplinary manner and that students will be expected to acquire this skill.
- c) **Foster Interdisciplinary Thinking:** Encourage students to engage in interdisciplinary thinking by replicating what they observe in the classroom. An effective method for developing this higher-order cognitive skill is to assign students the task of reevaluating an issue, initially discussed from a discipline-specific perspective, by incorporating insights from another discipline and subsequently endeavoring to integrate and synthesize their analysis.
- d) **Develop and Execute Educational Activities:** Numerous activities can be effortlessly integrated to deliver research-backed benefits, such as improved critical thinking, analytical skills, and a more comprehensive understanding of the subjects they are studying. For instance, students could be tasked with clarifying the rationale behind decisions made by historically influential figures. Completing such an activity might

require insights from disciplines such as politics, economics, sociology, and history. Another method to engage students in interdisciplinary education is by incorporating service learning as a fundamental element of undergraduate instruction.

- e) **Choose Appropriate Pedagogical Methods and Activities:** Inquiry-based learning, for example, entails encouraging students to formulate inquiries, gather information, and solve problems. Project-based learning immerses students in the planning and execution of projects designed to address real-world challenges or issues. Case-based learning engages students in analyzing and discussing complex cases that necessitate knowledge and competencies from multiple disciplines.
- f) **Provide Constructive Feedback:** Review students' work and evaluate their ability to generate hypotheses drawing from various disciplines and subsequently to integrate and synthesize their analysis <sup>10</sup> & <sup>11</sup>.

Interdisciplinary education and engaged learning are pedagogical approaches that underscore the integration of knowledge and skills from diverse disciplines to address actual real-world problems and challenges. Strategies for facilitating interdisciplinary education and engaged learning encompass defining a common theme or objective, introducing students to interdisciplinary approaches, cultivating interdisciplinary thinking, designing and executing educational activities, selecting appropriate pedagogical methods and activities, and delivering constructive feedback.

## **2.4. Barriers to Implementing Interdisciplinary Education and Engaged Learning and Strategies to Overcome those Barriers**

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<sup>10</sup> Lauren H Bryant et al., "Complicated Spaces: Negotiating Collaborative Teaching and Interdisciplinarity in Higher Education" 14 (2014).

<sup>11</sup> Culhane et al., "Exploring the Intersections of Interdisciplinary Teaching, Experiential Learning, and Community Engagement: A Case Study of Service Learning in Practice," n.d.

Interdisciplinary education and engaged learning offer numerous benefits, and also outlined several barriers that need to be overcome for their successful implementation. Here's a summary of the barriers and strategies to overcome them and not limited to:

#### **2.4.1. Barriers to Interdisciplinary Education and Engaged Learning**

- **Attitude:** Resistance to interdisciplinary education among educators and students can hinder its adoption. Educators need to be open to new approaches, and students must be willing to embrace a more holistic learning experience.
- **Communication:** Different disciplines often use distinct research methods and terminology, making effective collaboration challenging. Improved communication and a shared understanding of interdisciplinary concepts can help bridge this gap.
- **Academic Structure:** The traditional focus on specialized training in a single field may discourage interdisciplinary education. Educators should find ways to balance in-depth training with interdisciplinary exploration.
- **Funding:** Securing funding for interdisciplinary research can be complicated due to varying programmatic emphases of different funding agencies. Researchers must seek out grants and opportunities that support interdisciplinary work.
- **Career Development:** The absence of a well-defined career path in interdisciplinary fields can discourage students and professionals. Encouraging institutions to recognize interdisciplinary accomplishments and promoting the benefits of diverse skills can help.
- **Lack of Prior Experience:** Students may struggle to connect interdisciplinary subjects to their specialized fields. Providing introductory courses or workshops that bridge these gaps can be beneficial.

- **Curriculum and Pacing Demands:** The structure and pace of the traditional curriculum can be an obstacle to cross-curricular coordination. Educators should advocate for flexibility in curricula and scheduling to allow for interdisciplinary learning experiences.
- **Teacher Knowledge:** Many educators may lack experience in interdisciplinary instruction. Pre-service teacher education programs should incorporate interdisciplinary training, and professional development opportunities should be available for in-service teachers <sup>12</sup> and <sup>13</sup>.

#### 2.4.2. Strategies to Overcome Barriers

- **Building Commitment:** Many prestigious academic institutions, including Duke University, the University of Pittsburgh, the University of Southern California, and Stanford University, highly value interdisciplinary engagement as a source of groundbreaking research and collaborative efforts. Senior leaders, such as Chancellors, stress the significance of interdisciplinary scholarship within research universities, highlighting its role in addressing societal needs and providing external benefits. To gather support for interdisciplinary initiatives, university leaders must establish a clear connection between these activities and their broader societal advantages, emphasizing problem-solving and collaboration within the knowledge-based economy. These universities view interdisciplinary collaboration as a means to foster innovation and aim to align their internal objectives with external demands to gain support from their stakeholders.

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<sup>12</sup> Solomon Bililign, “The Need for Interdisciplinary Research and Education for Sustainable Human Development to Deal with Global Challenges” 1, no. 1 (2013).

<sup>13</sup> Richard K. Norton et al., “The Promise and Challenge of Integrating Multidisciplinary and Civically Engaged Learning,” *Journal of Planning Education and Research* 42, no. 1 (March 2022): 102–17, <https://doi.org/10.1177/0739456X18803435>.

- **Implementing Commitment:** In universities, key institutional administrators, like the president or provost, are essential in driving and implementing interdisciplinarity. They consider interdisciplinary initiatives crucial for their institutions, in line with proven strategies for success in this area. Achieving interdisciplinarity requires strong administrative backing and leadership. Universities often make interdisciplinarity a priority by incorporating it into their strategic plans, emphasizing the integration of knowledge from different fields in research and teaching, and initiating grant programs to encourage interdisciplinary collaboration. Mission statements also underscore the importance of interdisciplinary and cross-campus partnerships. In essence, institutional administrators, strategic plans, and mission statements are pivotal in promoting and supporting interdisciplinarity in universities, demonstrating a commitment to fostering collaboration across disciplines.
- **Sustaining Collaboration:** This study explores the challenge of sustaining collaboration in various institutions. To address this challenge, institutions employ a range of strategies, including structural changes, financial and human resource initiatives, and the creation of dedicated physical facilities. Structural changes involve removing barriers and establishing administrative units to support interdisciplinary teams. Financial and human resource initiatives include hiring interdisciplinary faculty and adjusting tenure and promotion policies. The construction of interdisciplinary facilities is a significant commitment to sustaining collaboration, as it provides the necessary physical space and resources. These strategies collectively ensure the long-term viability of interdisciplinary engagement within institutions <sup>14</sup>.

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<sup>14</sup> Michael Harris, "Interdisciplinary Strategy and Collaboration: A Case Study of American Research Universities," n.d.

To address these challenges, educators should equip themselves with a sufficient understanding of relevant interdisciplinary fields, enabling them to confidently introduce and guide interdisciplinary investigations. They should also aim to strike the right balance in the complexity of interdisciplinary approaches and actively avoid polarization. This involves preventing instructors from becoming possessive about their specific subject area and its role in the analysis, as this can create conflict with other disciplines. Furthermore, educators can proactively seek opportunities for curriculum alignment, select thematic concepts that naturally encourage interdisciplinary exploration, design shared summative assessments, and propose that teachers within their grade-level teams leverage the inherent flexibility in the school year to create micro-units of interdisciplinary learning. These micro-units can be revisited and built upon throughout the academic year.

## **2.5. Models and Best Practices for Preparing Sustainable Development**

### **Professionals**

Preparing professionals for sustainable development, with an emphasis on interdisciplinary and engaged learning, demands a pragmatic approach geared towards cultivating sustainability knowledge, attitudes, and behaviors for equipping the next generation of sustainable development professionals with the requisite expertise and understanding. To attain this objective, it is very important to create effective models and adhere to best practices for the preparation of sustainable development professionals which involves a holistic strategy encompassing various elements. Within the framework of this paper, various specific instances are outlined to illustrate these concepts, and these instances include but are not limited to:

- a) **Embracing Education for Sustainable Development (ESD):** Educational institutions can embrace ESD by adopting an interdisciplinary and Engaged Learning approach that

emphasizes collaboration with industries and partner organizations. By incorporating challenge-based programs and work-based learning approaches, students can acquire practical insights and hands-on experience in sustainable development <sup>15</sup>.

- b) **Incorporating Sustainability Themes for Enhanced Interdisciplinarity:** Universities can enrich interdisciplinary education and Engaged Learning by infusing sustainability themes into their curriculum. This strategy is pivotal for nurturing students' competencies in sustainability. The combination of interdisciplinary education and ESD synergistically enhances learners' proficiency in both interdisciplinary studies and sustainability <sup>16</sup>.
- c) **Real-world Application for Sustainable Development:** An interdisciplinary approach is indispensable for preparing sustainable development professionals. Practical projects that focus on advancing sustainability education and addressing the Sustainable Development Goals provide students with the opportunity to put their knowledge into practice in real-world scenarios <sup>17</sup>.
- d) **Facilitating Collaboration in Higher Education:** Innovative project-based learning initiatives that foster interdisciplinary collaboration within higher education institutions play a crucial role in readying future sustainable development professionals. These initiatives facilitate the exchange of ideas and expertise among students from diverse disciplines, cultivating a holistic understanding of sustainable development challenges <sup>18</sup>.

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<sup>15</sup> Faculty of Education, Pamukkale University, Denizli, Turkey and Ahmet Kanmaz, "A Study on Interdisciplinary Teaching Practices: Primary and Secondary Education Curricula," *African Educational Research Journal* 10, no. 2 (June 24, 2022): 200–210, <https://doi.org/10.30918/AERJ.102.22.032>.

<sup>16</sup> Michael Rogers et al., "Using Sustainability Themes and Multidisciplinary Approaches to Enhance STEM Education," *International Journal of Sustainability in Higher Education* 16, no. 4 (July 6, 2015): 523–36, <https://doi.org/10.1108/IJSHE-02-2013-0018>.

<sup>17</sup> Jixian Zhang, "Practical Applications on Sustainable Development Goals in IJIDF," *International Journal of Image and Data Fusion* 11, no. 3 (July 2, 2020): 215–17, <https://doi.org/10.1080/19479832.2020.1755083>.

<sup>18</sup> Geralyn E Stephens, "FACILITATING COLLABORATION IN ONLINE GROUPS," *JOURNAL OF EDUCATORS ONLINE*, n.d.

By implementing these models and best practices, educational institutions can effectively equip sustainable development professionals with the interdisciplinary competencies and sustainability skills they need to tackle the intricacies of sustainable development.

## **2.6. Evolution of Master's in Development Practice (MDP) and the Role of the Global Association.**

The Master's Development Practice (MDP) program was created in response to the recommendations of the International Commission on Education for Sustainable Development Practice in 2007. This commission, organized by the Earth Institute, acknowledged the necessity for interdisciplinary education in sustainable development. It stressed the importance of individuals who could connect various fields of knowledge to effectively tackle intricate sustainable development challenges. These individuals, known as "generalist practitioners," were envisioned to comprehend the interplay between different disciplines and skillfully apply insights from subject-specific experts (<http://www.mdpglobal.org/>).

Consequently, the Commission proposed the establishment of a Global Network of master's programs in development practice at higher education institutions. The Global Association of Master's in Development Practice Secretariat, headquartered at Columbia University's Earth Institute, was founded to oversee these programs on a global scale. As of July 2019, there were 38 partner institutions within this network. The MDP program consists of three primary components:

- **Core Curriculum:** This section imparts knowledge and skills across four key domains, namely health sciences, natural sciences, social sciences, and management.
- **Global Classroom:** The global classroom functions as a virtual platform that unites students from across the globe to learn from experts in various sustainable development-related fields. It is accessible to students enrolled in the "Foundations of Sustainable

Development" course at partner institutions and regularly features guest speakers from diverse professional backgrounds, including economics, agriculture, health, policy, and education.

- **Field Training:** The field training component provides students with practical experience, allowing them to apply the knowledge acquired in the classroom to real-life scenarios and challenges associated with sustainable development (<http://mdpglobal.org/>)

In conclusion, the MDP program was established with the aim of educating generalist practitioners capable of addressing sustainable development issues by bridging the gap between different areas of knowledge. It is a worldwide initiative with partner institutions worldwide, providing a comprehensive education that encompasses a core curriculum, a virtual global classroom, and practical field training.

*The Leader's fundamental act is to induce people to be aware or conscious of what they feel  
— to feel their true needs so strongly, to define their values so meaningfully,  
that they can be moved to purposeful action.  
James MacGregor Burns Leadership*

## **CHAPTER THREE**

### **Stakeholders and Their Role in Interdisciplinary Education and Engaged Learning Programs**

#### **3.1. Introduction**

Interdisciplinary education and engaged learning programs play a vital role in equipping professionals with the skills and knowledge needed to address the complex and urgent challenges of sustainable development. These endeavors promote an inclusive and collaborative learning environment by bringing together a wide range of participants, both from within and beyond the academic institution, with the goal of creating a comprehensive and synergistic approach to education. In this context, a profound understanding of the roles and contributions of these diverse stakeholders is essential for the success of these transformative initiatives. Internal and external participants perform unique and complementary functions and roles, working in harmony to ensure the effectiveness of interdisciplinary education and engaged learning programs, ultimately leading to the development of competent and capable professionals in the field of sustainable development. This chapter explores the diverse contributions of these internal and external stakeholders as outlined below and not limited to:

#### **3.2. Internal Stakeholders**

##### **3.2.1. Universities and Academic Institutions**

Universities and academic institutions play the crucial internal stakeholder role in fostering interdisciplinary education and active learning initiatives. Their mission is to transcend

conventional academic boundaries, fostering innovative research and creative projects that address current challenges at local and global levels (Anon 2004). The success of interdisciplinary programs centers on the active participation of faculty, administrators, and students throughout the academic institution. Interdisciplinary collaboration thrives when there is flexibility, an easy work pace, and the understanding that learning knows no disciplinary or institutional boundaries. Furthermore, faculty engagement committees can act as catalysts for interdisciplinary cooperation, fostering an integrated interdisciplinary campus community. Recent research has explored the barriers to faculty engagement in interdisciplinary activities, including disciplinary norms, academic structures, and professional incentives. While the impact of these strategies on interdisciplinary collaboration and productivity varies, they shed light on crucial issues in higher education (Smith and McPherson 2020).

In conclusion, academic institutions as an internal stakeholder can promote interdisciplinary education and active learning programs by developing interdisciplinary environments, removing institutional obstacles, adopting comprehensive approaches to multidisciplinary research, establishing supportive administrative structures, and encouraging collective involvement from faculty, administrators, and students across the institution.

### **3.2.2. Educators and Instructors**

In the realm of interdisciplinary teaching, the focus is often placed on the perspectives and advantages from the instructor's standpoint as internal stakeholder. Instructors engaging in interdisciplinary teaching can derive significant benefits. When teaching interdisciplinary courses, educators frequently encounter topics or issues where achieving consensus across disciplines is challenging. However, this divergence of viewpoints and approaches can advance the professional growth of instructors. Even when the integration of disciplinary perspectives is not entirely whole,

it compels instructors to critically review their existing disciplinary frameworks, foster fresh insights into their own disciplines as well as those of their peers, and effectively navigate the variations within departmental cultures. Nevertheless, it is crucial to recognize that alongside the numerous advantages of interdisciplinary teaching and learning, several potential challenges and considerations must be taken into account when implementing interdisciplinary programs. Firstly, instructors must assess whether their students are adequately prepared to assimilate and synthesize diverse subject matter. Many students are accustomed to passive knowledge consumption rather than active engagement in knowledge construction. To optimize the benefits for students participating in interdisciplinary programs, instructors are required to provide guidance on becoming active learners. In many cases, this entails a deliberate transformation of students' entrenched passive learning approaches <sup>19</sup>.

Additionally, instructors and advocates of interdisciplinary programs must consider the potential conflicts that may arise between this pedagogical approach and the expectations of faculty and administrative bodies. Interdisciplinary programs inherently challenge the traditional structure of many academic institutions, where departments operate in relative isolation, each adhering to its distinct values and norms. Consequently, faculty members involved in pioneering interdisciplinary curricula should seek departmental support, particularly in settings where research takes preference over teaching. This support can manifest in various forms, such as incentives for faculty collaboration across departments, recognition for those dedicated to improving their teaching, and a willingness to embrace changes that may increase instructional costs, such as smaller or adapted class sizes <sup>20</sup>.

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<sup>19</sup> William H Newell, "THE CASE FOR INTERDISCIPLINARY STUDIES: RESPONSE TO PROFESSOR BENSON'S FIVE ARGUMENTS," n.d.

<sup>20</sup> Rebekah Brown, Lara Werbeloff, and Rob Raven, "Interdisciplinary Research and Impact," *Global Challenges* 3, no. 4 (April 2019): 1900020, <https://doi.org/10.1002/gch2.201900020>.

Furthermore, developers of interdisciplinary programs contend with the formidable challenge of effectively integrating disparate disciplines, which can often prove more complex than initially expected. Achieving a harmonious integration of disciplinary epistemologies, methodologies, and frequently divergent perspectives requires a carefully designed curriculum. As emphasized by Newell and Green (1982), "the critical factor in successful interdisciplinary teaching seems to be the willingness to engage other disciplines and to temporarily adopt their assumptions and worldviews," underscoring the significance of securing student buy-in (Newell & Green, 1982).

In summary, the ongoing discourse on interdisciplinarity concurs with claims that collaboration is typically a vital prerequisite for the success of interdisciplinary programs. Instructors play a pivotal role by contributing their disciplinary expertise, ensuring that students are deeply immersed in the theories, methodologies, perspectives, and core tenets of the involved disciplines. The subsequent section will delve into the foundational principles and methodologies of collaborative teaching, explore the benefits and challenges associated with this pedagogical approach, and present recommendations derived from the existing literature for promoting effective faculty collaboration.

### **3.2.3. Students**

The significance of interdisciplinary education is particularly noticeable in colleges and universities, including large research institutions. In comparison to monodisciplinary approaches, interdisciplinary teaching and learning produce distinct outcomes. Students as an internal stakeholder, are not only required to synthesize and integrate abstract knowledge and theories from multiple disciplines but also to comprehend how these bodies of knowledge and theories are obtained, taught, and applied within those fields. The primary goal of interdisciplinary education programs is to merge diverse subjects, fostering innovative perspectives to address complex issues.

Numerous avenues exist for students to actively participate in such programs, and the following paragraphs outline various modalities, attributing each piece of information to its original source. One avenue for student involvement in interdisciplinary education is through enrolling in courses that seamlessly integrate multiple subjects, thereby affording students a more comprehensive understanding of specific topics. An illustrative example of this approach is evident in courses merging biology and ethics, which enable students to discern and appreciate the ethical dimensions inherent in scientific research. Collaboration among students hailing from disparate disciplines constitutes another pivotal facet of interdisciplinary education programs. This collaborative element facilitates mutual learning and affords participants an enriched understanding of divergent perspectives. The collaborative nature of interdisciplinary education programs underscores the importance of cultivating an environment wherein students can glean insights from disciplines beyond their own <sup>21</sup>.

Engaging in interdisciplinary research projects serves as an important path for students to actively partake in interdisciplinary education. These projects, which cut across various disciplines, play a crucial role in cultivating critical thinking skills and fostering a deep understanding of complex issues. Immersing students in interdisciplinary research projects significantly contributes to their intellectual development and enhances their ability to tackle intricate problems. Furthermore, attending interdisciplinary events provides another valuable dimension to student involvement in interdisciplinary education programs. Seminars, workshops, and conferences offer students opportunities to remain current with the latest research and advancements in interdisciplinary fields. Actively participating in such events not only expands students' knowledge base but also heightens awareness of the dynamic and evolving landscape within interdisciplinary realms. These

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<sup>21</sup> Cong Xu et al., "Challenges to Student Interdisciplinary Learning Effectiveness: An Empirical Case Study," *Journal of Intelligence* 10, no. 4 (October 17, 2022): 88, <https://doi.org/10.3390/jintelligence10040088>.

experiences contribute to a well-rounded education, equipping students with the skills and insights needed to navigate the complexities of our interconnected world. <sup>22</sup> .

In summation, the multifaceted engagement of students in interdisciplinary education programs, as elucidated by various authors, serves to cultivate critical thinking skills, impart a comprehensive perspective on complex issues, and equip students for future careers necessitating interdisciplinary knowledge and proficiency.

### **3.3. External Stakeholders**

#### **3.3.1. Professional Organizations**

Professional organizations hold a significant and multifaceted role as external stakeholders in the realm of interdisciplinary education and engaged learning programs. A comprehensive review of pertinent literature reveals several key insights. Professional societies exercise a substantial influence on researchers, particularly those who endeavor to gain public recognition as a means of advancing their careers. In this regard, they play an instrumental role in diminishing barriers to researchers' progression through policy revisions and the infusion of interdisciplinary expertise into review panels. Additionally, professional societies emerge as leaders in the articulation and development of norms governing interdisciplinary practice. Their proactive involvement extends to suggesting essential skills and standards that should be mastered by students and faculty engaged in interdisciplinary research and education, thereby ensuring the integrity and effectiveness of interdisciplinary initiatives <sup>23</sup> .

Moreover, research suggests that the early introduction of interdisciplinary education within the liberal arts core of professional studies significantly enhances its impact. Notably, major

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<sup>22</sup> Jessica Oudenampsen et al., "Interdisciplinary Education Affects Student Learning: A Focus Group Study," *BMC Medical Education* 23, no. 1 (March 18, 2023): 169, <https://doi.org/10.1186/s12909-023-04103-9>.

<sup>23</sup> Laura Taylor, "The Role of Non-Governmental Organizations in Global Education: A Case Study on Sub-Saharan Africa," n.d.

foundations such as Robert Wood Johnson, Pew, and Kellogg are channeling their funding efforts toward fostering collaborative partnerships among professions, institutions, and communities, underscoring the vital role of professional organizations in fostering interdisciplinary approaches. In addition, professional organizations offer invaluable opportunities for the development of a spectrum of skills encompassing clinical, research, educational, and administrative domains, which can prove advantageous for early career development. This multifaceted skill development further underlines their pivotal role in the professional landscape <sup>24</sup>.

Effective leadership within interdisciplinary groups stands out as an essential component for achieving various objectives, including membership engagement, mission alignment, team cohesion, and the proficient management of boundaries. Professional organizations provide a platform for nurturing such leadership, thereby fostering effective interdisciplinary endeavors <sup>25</sup>. Furthermore, the nurturing of professional identity and active engagement in interprofessional community collaboration are highlighted as crucial elements for successful interdisciplinary work. Collaboration with fellow professionals and community stakeholders emerges as a fundamental and irreplaceable factor contributing to the accomplishment of interdisciplinary projects, emphasizing the central role of professional organizations (Vail et al. 2020).

In sum, the collective body of evidence underscores the overarching role of professional organizations in facilitating interdisciplinary research and education. They accomplish this by actively contributing to the formulation of norms, development of standards, and provision of

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<sup>24</sup> Emily A. Vail et al., “The Role of Professional Organizations in Fostering the Early Career Development of Academic Intensivists,” *Annals of the American Thoracic Society* 17, no. 4 (April 2020): 412–18, <https://doi.org/10.1513/AnnalsATS.201908-573PS>.

<sup>25</sup> Betül Balkar, “An Investigation of Distance Education Activities of Non-Governmental Organizations (NGOs) in Turkey during the COVID-19 Pandemic,” n.d.

opportunities for skill enhancement and collaborative engagements, thus serving as linchpins in the interdisciplinary educational landscape.

### **3.3.2. Industry Partners**

In the academic setting of interdisciplinary education and engaged learning programs, industry partners assume a fundamental role as external stakeholders. In the case of university programs related to development practice the term *industry partner* is a broad term used to describe a wide range of organizations engaged with the university in collaborative research, outreach, instruction, institution strengthening and/or other forms of development practice. Industry partners include private, public and multilateral organizations involved in development planning, policy, finance, project management and other aspects of development practice. The ensuing insights from various sources shed light on the significance of their involvement. Firstly, the incorporation of industry partners has been recognized as a value-added component in Work-Integrated Learning (WIL), a fact that aids students in comprehending the multifaceted dimensions of their projects, such as encompassing social, environmental, economic, and cultural aspects <sup>26</sup>. Furthermore, it is incumbent upon researchers to meticulously craft curricula that not only address the paramount issues within the industry but also take into account the mutual benefits that can be derived by both academia and industry. This necessitates the infusion of fundamental industry practices into academic settings, thereby facilitating the enhancement of students' skill sets <sup>27</sup>.

In an endeavor to foster such partnerships, a comprehensive call for Expressions of Interest was disseminated by the industry partnerships team. The initiative yielded responses from different

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<sup>26</sup> University of New South Wales, Australia et al., “Projects of Consequence: Interdisciplinary WIL Projects Designed to Meet the Needs of Partners and Students,” *Journal of University Teaching and Learning Practice* 17, no. 4 (October 1, 2020): 118–27, <https://doi.org/10.53761/1.17.4.9>.

<sup>27</sup> The University of Sydney, Australia et al., “Evaluating Alternative Work-Integrated Learning Opportunities: Student Perceptions of Interdisciplinary Industry-Based Projects,” *Journal of University Teaching and Learning Practice* 17, no. 4 (October 1, 2020): 95–107, <https://doi.org/10.53761/1.17.4.7>.

(28) organizations, and it also led to the engagement of additional strategic partners through tailor-made proposals. As a result, two distinct professional streams were subsequently established, bolstering the collaborative ecosystem<sup>28</sup>. University-Industry Collaborations (UIC) stand as a testament to the fruitful symbiosis that exists between educational institutions and industrial entities. These collaborations have yielded significant contributions in terms of resources and research development opportunities. Additionally, both universities and industry partners have harnessed the potential for expert development by providing guidance and mentorship to students who partake in their roles as interns and apprentices<sup>29</sup>.

A pertinent case in point is the partnership that transpired in 2013, wherein Baker Hughes joined forces with the School of Engineering at the University of Aberdeen. This collaborative effort aimed at creating a model of industry-academia synergy designed to enhance student learning and overall experiential enrichment. These industry partners emerge as invaluable assets in the realm of interdisciplinary education and engaged learning programs. Their involvement not only aids in fostering students' skill development and problem-solving capabilities but also allows them to tap into the vast reservoir of research and development opportunities presented by universities. In this dynamic interplay between academia and industry, a symbiotic relationship thrives, ultimately enriching the educational landscape (Kligyte et al. 2022) &<sup>30</sup>.

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<sup>28</sup> Farah Ahmed et al., “Strengthening the Bridge Between Academic and the Industry Through the Academia-Industry Collaboration Plan Design Model,” *Frontiers in Psychology* 13 (June 6, 2022): 875940, <https://doi.org/10.3389/fpsyg.2022.875940>.

<sup>29</sup> Jeffrey C. Sun and Heather A. Turner, “The Complementarity Investment in University-Industry Collaboration,” *Innovative Higher Education* 48, no. 3 (June 2023): 539–56, <https://doi.org/10.1007/s10755-022-09641-6>.

<sup>30</sup> Farrokh Mistree et al., “An Industry-University Partnership to Foster Interdisciplinary Education,” in *2016 ASEE Annual Conference & Exposition Proceedings* (2016 ASEE Annual Conference & Exposition, New Orleans, Louisiana: ASEE Conferences, 2016), 26210, <https://doi.org/10.18260/p.26210>.

### **3.3.3. Governmental Institutions (Regulatory bodies, and Policymakers)**

Government, regulatory bodies, and policymakers play a pivotal and enduring role as key external stakeholders in interdisciplinary education and engaged learning programs. Their involvement is essential to ensure the vitality and sustainability of these educational initiatives. Education's positive influence on civic and social engagement is a recurring theme, as it is found to enhance political engagement, civic participation, voting behavior, trust in society, tolerance, and political knowledge. Consequently, educational institutions often strive to nurture students who are not only well-informed but also actively engaged in their civic duties, aiming to shape them into responsible and participative citizens <sup>31</sup>.

In this context, governmental institutions, specifically policymakers and regulatory bodies, are positioned to exert a significant impact. They have the capacity to address issues related to education accessibility and can actively support initiatives such as emerging educational trends, technological advancements, and labor market demands at promoting civic engagement. Government and regulatory bodies can collaborate with educational institutions to develop and refine accreditation standards, promoting a consistent level of excellence across interdisciplinary programs. Policymakers can allocate resources, scholarships, and incentives to encourage the growth of interdisciplinary education, making it more accessible to a diverse range of students. One noteworthy example is the Department of Education, which has formulated a roadmap and call to action to advance civic learning and engagement in democracy <sup>32</sup>.

Engagement holds a central place in higher education, encompassing diverse activities such as partnerships between universities and public and private sectors. These collaborations aim to enrich scholarship, research, and creative endeavors, improve curriculum design, teaching

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<sup>31</sup> David E Campbell, "3. What Is Education's Impact on Civic and Social Engagement?," 2006.

<sup>32</sup> Arne Duncan, Martha Kanter, and Eduardo Ochoa, "U.S. Department of Education January 2012," n.d.

methodologies, and learning outcomes, cultivate responsible and engaged citizens, reinforce democratic values and civic responsibility, tackle pressing societal challenges, and contribute to the greater public good. Recognizing the importance of civic engagement and interdisciplinary education, many educational institutions are establishing civic engagement centers and institutes. These entities serve as valuable resources and support systems for interdisciplinary education and engaged learning programs, further reinforcing the role of governmental institutions in this endeavor <sup>33</sup>.

In conclusion, the involvement of governmental institutions as external stakeholders in interdisciplinary education and engaged learning programs is of paramount significance. Policymakers and regulatory bodies have the potential to facilitate civic engagement and education, while engagement remains a central aspect of higher education. Additionally, civic engagement centers and institutes function as essential allies by offering resources and support for these programs.

#### **3.3.4. Non-Governmental Organizations (NGOs)**

The significant role of Non-Governmental Organizations (NGOs) as external stakeholders in interdisciplinary education and engaged learning programs is noteworthy. Insights drawn from the available research reveal several key dimensions of their involvement. In various Western countries, NGOs actively participate in academic programs and exert a substantial influence on the implementation of policies. They have emerged as prominent partners in endeavors to achieve educational objectives established by governmental authorities, contributing not only to policy formation but also to its effective implementation <sup>34</sup>.

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<sup>33</sup> Hiram E Fitzgerald et al., “The Centrality of Engagement in Higher Education,” n.d.

<sup>34</sup> Yarden Gali and Chen Schechter, “NGO Involvement in Education Policy: Principals’ Voices,” *International Journal of Educational Management* 34, no. 10 (July 24, 2020): 1509–25, <https://doi.org/10.1108/IJEM-02-2020-0115>.

NGOs play a vital role in enhancing education quality by investing in teacher training and engaging with local communities. They collaborate with governments and international organizations to advocate education-centric policies, emphasizing increased funding, improved infrastructure, and removing barriers to access. NGOs provide essential resources like financial support, grants, and networking for interdisciplinary initiatives, benefiting students and educators. This support enhances the viability and sustainability of interdisciplinary education. Additionally, NGOs contribute to global advocacy and awareness, inspiring students to be informed citizens with a sense of civic responsibility and global citizenship. They allocate substantial resources to enhance educators' proficiency, actively engaging local communities and making them integral contributors to the educational process. NGOs advocate for policies prioritizing education, including increased funding, improved infrastructure, and the removal of barriers to learning <sup>35</sup>.

In the wake of the COVID-19 pandemic, NGOs have proven to be effective in supporting the distance education process. Their active participation in social development and commitment to shaping an inclusive digital future underscores their significance as vital stakeholders in education. However, certain challenges, including government constraints, disregard for human rights and civil society, unqualified teachers, and education models misaligned with a nation's curriculum or sustainability goals, can potentially undermine the effectiveness of NGOs in the field of education<sup>36</sup>. Efforts to regulate and monitor the role of NGOs in government, civil society, and education can help harness the potential of NGOs within the global education landscape. This

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<sup>35</sup> Claudia Bergmüller, "Global Education and the Cooperation of NGOs and Schools: A German Case Study," *International Journal of Development Education and Global Learning* 7, no. 3 (2016), <https://doi.org/10.18546/IJDEGL.07.3.04>.

<sup>36</sup> Balkar, "An Investigation of Distance Education Activities of Non-Governmental Organizations (NGOs) in Turkey during the COVID-19 Pandemic."

collaborative approach at an international level challenge the international community as a whole to take responsibility for ensuring the fundamental right to accessible, high-quality education <sup>37</sup>. To ensure the enduring and effective engagement of NGOs as stakeholders, clear communication channels and strategic partnerships should be established with educational institutions. Collaboration should be grounded in shared objectives and values, ensuring the sustained relevance and success of interdisciplinary education and engaged learning programs. By harnessing the expertise, resources, and real-world insights that NGOs offer, educational institutions can prepare students for the multifaceted demands of the 21st century, equipping them to navigate a rapidly evolving world while instilling a spirit of collaboration and social responsibility that transcends the classroom.

### **3.3.5. Civil Society Organizations**

Civil Society Organizations (CSOs) assume a pivotal external stakeholder role of education and knowledge dissemination, serving as instrumental entities in various capacities. Non-Governmental Organizations (NGOs) and other nonprofit educational institutions within the civil sector play an integral role in the provision of education and training, offering diverse programs encompassing basic education, higher education, and adult learning initiatives. Beyond this, CSOs actively engage in the generation of new knowledge and the creation of innovative social practices, making significant contributions to the educational landscape. However, it is noteworthy that while CSOs can function as constructive innovators in the educational sphere, they are not immune to the risks associated with educational privatization and the necessity of filling gaps left by governmental education systems <sup>38</sup>.

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<sup>37</sup> Laura Taylor, “The Role of Non-Governmental Organizations in Global Education: A Case Study on Sub-Saharan Africa,” n.d.

<sup>38</sup> Johannes Glückler, Heinz-Dieter Meyer, and Laura Suarsana, eds., *Knowledge and Civil Society*, vol. 17, Knowledge and Space (Cham: Springer International Publishing, 2022), <https://doi.org/10.1007/978-3-030-71147-4>.

An additional dimension to the multifaceted role of CSOs in education is their involvement in interdisciplinary education and engaged learning programs, which substantially contribute to civic learning for democratic engagement. Interdisciplinary studies, as facilitated by CSOs, not only provide a holistic understanding of various subjects but also cultivate essential expertise critical for civic learning. Students, through participation in interdisciplinary courses, gain valuable experience in evaluating contributions from experts representing diverse disciplines, thereby enhancing their analytical skills. Moreover, these courses contribute significantly to the development of essential skills and values that play a crucial role in civic learning <sup>39</sup>.

Furthermore, CSOs extend their influence into the realm of education sector policies and programs by actively monitoring them, thereby ensuring transparency and accountability <sup>40</sup>. Teachers, recognizing the value of collaboration with CSOs, often find fruitful cooperation with these organizations, which serve as popular sources for new approaches and activities provided to schools at no cost. Notably, CSOs demonstrate adeptness in selecting methods that are closely aligned with real-life situations occurring within the academic institutions, community, or the broader global context <sup>41</sup>.

In conclusion, the multifaceted involvement of civil society organizations in education and knowledge dissemination is evident. Interdisciplinary education and engaged learning programs emerge as valuable contributors to civic learning for democratic engagement. Moreover, CSOs assume a vital role in monitoring education sector policies and programs, ensuring transparency and accountability in the educational landscape.

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<sup>39</sup> William H Newell, "An Addendum to A Crucible Moment," n.d.

<sup>40</sup> David Simon Kobia, "Enhancing the Role of Civil Society Organizations in Public Education Sector Monitoring and Accountability," n.d.

<sup>41</sup> Dana Moree and Terezie Vávrová, "Educational Activities in Civil Society," n.d.

### 3.3.6. Research and Innovation Centers

Research and Innovation Centers serve as pivotal external stakeholders, exerting a substantial influence on interdisciplinary education and engaged learning initiatives. These centers are wholly committed to the advancement of research and the promotion of innovation across diverse academic domains. They forge partnerships with educational institutions, thereby affording students the unique opportunity to transcend the boundaries of their respective departments. This collaboration empowers students to tailor their educational journeys through self-directed study and the selection of minors that align with their academic interests and aspirations <sup>42</sup>.

These centers extend their influence beyond research and innovation endeavors by actively facilitating interdisciplinary learning experiences. They provide students with fertile ground for cross-disciplinary collaboration and problem-solving. For example, the Innovative Interdisciplinary Center for Interdisciplinary Teaching & Learning at Boston University College of General Studies provides free and open access to all of its research publications. This fusion of knowledge equips future leaders with the essential skills for interdisciplinary thinking and problem-solving, essential for addressing complex, real-world challenges <sup>43</sup>.

However, it is important to note that the widespread adoption of interdisciplinary teaching, learning, and research remains a formidable challenge for graduate schools. Institutional structures and reward systems within these institutions tend to favor disciplinary silos, thereby constraining the potential for cross-disciplinary collaboration in graduate training and education. Consequently, there is an imperative need for initiatives aimed at fostering innovation in interdisciplinary

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<sup>42</sup> Vincent Blok, ed., *Putting Responsible Research and Innovation into Practice: A Multi-Stakeholder Approach*, vol. 40, Library of Ethics and Applied Philosophy (Cham: Springer International Publishing, 2023), <https://doi.org/10.1007/978-3-031-14710-4>.

<sup>43</sup> Roberta D Baer et al., "IMPACT: The Journal of the Center for Interdisciplinary Teaching and Learning. Volume 8, Issue 2, Summer 2019," n.d.

graduate education and training. These initiatives should traverse programmatic, divisional, institutional, and inter-institutional boundaries, ultimately promoting interdisciplinary innovation in graduate education<sup>44</sup>.

In summary, Research and Innovation Centers emerge as critical external stakeholders, wielding substantial influence in the realm of interdisciplinary education and engaged learning. Their role extends from research and innovation promotion to the facilitation of interdisciplinary learning experiences, enabling students to engage in cross-disciplinary collaboration and problem-solving. Overcoming the challenges posed by prevailing institutional structures is paramount, emphasizing the necessity of initiatives geared towards nurturing interdisciplinary innovation in graduate education.

### **3.3.7. Community Partners**

Community partners play a crucial and continuing role as external stakeholders in interdisciplinary education and engaged learning programs. Their firm dedication emphasizes the lasting influence they exert in communities. By actively participating in the educational process, they establish a profound link for students between the classroom and the real world. This collaboration extends beyond a one-time engagement, evolving into a sustained relationship that benefits both educational institutions and the communities they serve. Community partners contribute their expertise, resources, and practical knowledge through students, ensuring the programs remain pertinent and impactful. This shared commitment transcends conventional boundaries, fostering a continual exchange of ideas, experiences, and insights. Through this collaborative effort, community partners contribute significantly to shaping the future of students, preparing them to tackle complex societal challenges responsibly. Their ongoing involvement is vital for sustaining

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<sup>44</sup> Dawn Youngblood, "Interdisciplinary Studies and the Bridging Disciplines: A Matter of Process," n.d.

the vigor and efficacy of interdisciplinary education and engaged learning programs, positioning them as true advocates for enduring community-based learning <sup>45</sup>.

One significant aspect of partnership practices has been explored during a comprehensive review of the literature. This examination revealed emerging and effective partnership practices that bridge the realms of higher education and communities. Notably, it recognized key challenges that accompany such collaborations, underlining their complex nature and the importance of addressing associated hurdles <sup>46</sup>. Community-academic partnerships, as illuminated by a systematic review of the relevant literature, are witnessing a notable shift. Communities, funding agencies, and academic institutions are increasingly embracing the involvement of community stakeholders as active research partners. This inclusive approach not only provides firsthand insights but also augments the relevance of research endeavors <sup>47</sup>.

The value of these partnerships is exemplified in a case study focused on enhancing the quality of life for asthmatic urban minority children in low-income households. This study highlights the collaborative efforts of communities and academic researchers. They join forces to conduct research that directly impacts the lives of those within the community, enhancing research relevance and efficacy. The academic community recognizes the importance of community perspectives in partnership research, and the *Progress in Community Health Partnerships* journal reflects this acknowledgment. The journal actively solicits manuscripts that convey the viewpoints and insights of community partners involved in various aspects of partnership research, training, or evaluation. Furthermore, it also reviews manuscripts written by academic partners that

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<sup>45</sup> Jennifer Culhane et al., “Exploring the Intersections of Interdisciplinary Teaching, Experiential Learning, and Community Engagement: A Case Study of Service Learning in Practice,” n.d.

<sup>46</sup> Ann Arbor, “Higher Education Collaboratives for Community Engagement and Improvement,” n.d.

<sup>47</sup> Amy Drahota et al., “Community-Academic Partnerships: A Systematic Review of the State of the Literature and Recommendations for Future Research: Systematic Review of Community-Academic Partnerships,” *The Milbank Quarterly* 94, no. 1 (March 2016): 163–214, <https://doi.org/10.1111/1468-0009.12184>.

emphasize the reflections and perspectives of their community counterparts, reinforcing the mutual and interconnected nature of these collaborations <sup>48</sup>.

In summary, community partners serve as essential external stakeholders in interdisciplinary education and engaged learning programs. The synergy between academic and community partners in these partnerships not only enhances academic scholarship but also offers significant benefits to communities by augmenting their problem-solving and decision-making capacity, which can be applied to address real-world challenges in their daily Lives.

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<sup>48</sup> Meirong Liu et al., “A Case Study of Community—Academic Partnership in Improving the Quality of Life for Asthmatic Urban Minority Children in Low-Income Households,” *International Journal of Environmental Research and Public Health* 19, no. 15 (July 27, 2022): 9147, <https://doi.org/10.3390/ijerph19159147>.

*“Colleges and universities are historical institutions. They may suffer forgetfulness, or have selective recall, but ultimately heritage is the lifeblood of our campuses”.*  
—John Thelin, 2004, p. xiii

## CHAPTER FOUR

### Overview of the Cornell Global Development Practice (CGDP) Model

#### 4.1. Evolution of a Global Development Practice Framework

Cornell University's College of Agriculture and Life Sciences (CALS) boasts a rich history of engaging in international initiatives dating back to the 1920s. This pioneering move significantly contributed to advancing global agricultural development. In subsequent years, the College expanded its commitment by introducing a graduate minor in International Agriculture and Rural Development (IARD), solidifying the College's reputation as one of the World's top premier institutions for the study of international agriculture. In the late 1980s, a significant contribution from a then anonymous Cornell alumnus led to the establishment of the Cornell International Institute of Food, Agriculture, and Development (CIIFAD), which played a pivotal role for over two decades in expanding the breadth of international programs originating from the university. Today, the Graduate Field of Global Development stands as a testament to this rich legacy. Cornell University's Department of Global Development, an academic department within Cornell University's College of Agriculture and Life Science (CALS), houses a diverse array of teaching, research, outreach, and global development cooperation programs, supported by a large, multidisciplinary faculty. The department offers undergraduate Bachelor of Science (BS) degree programs, a research-focused doctoral program (PhD), and a flexible Master of Professional Studies (MPS) in Global Development tailored for early- and mid-career development professionals (Global Development MPS Handbook).

The MPS in Global Development program is tailored to enhance practical and technical skills for careers in field-based development and development policy roles, particularly in low-income and rural communities globally. This program integrates a flexible, course-based curriculum with a capstone or problem-solving project, offering opportunities for critical analysis of development strategies and exploration of practices, technologies, approaches, and global development trends (“Graduate Field of Global Development | CALS”).

The Department of Global Development at Cornell University collaborates closely with diverse networks of local and global partners to catalyze transformative change through impactful education and research. This department aims to construct a dynamic and inclusive academic environment, nurturing future development practitioners and leaders capable of driving transformational change at scales ranging from the local to the global. The evolution of Cornell University's Global Development Practice Framework signifies a dedication to justice, science, and people, with a commitment to making a direct social impact on a global scale (“Global Development Major | CALS”).

#### **4.2. Interdisciplinarity of Course Options Concentration in CGDM**

The Master of Professional Studies (MPS) in Global Development at Cornell University is a graduate-level degree program with an interdisciplinary approach. It is designed to enrich practical and technical skills, preparing students for careers in field-based development and development policy roles dedicated to serving low-income and rural communities worldwide. The program features a flexible course-based curriculum coupled with a capstone or problem-solving project. It provides avenues for students to critically analyze development theories and strategies, and to gain insights into practices, technologies, approaches, and trends in global development. A key emphasis of the program is on the significance of interdisciplinary coursework in effectively

assessing and addressing global development challenges. The curriculum encourages students to delve into a concentration of their choice, enabling them to focus on specific aspects of development (“Graduate Field of Global Development | CALS”).

### **4.3. Understanding, Beliefs, Attitudes, and Intentions**

E Understanding the societal impact of a specific academic program is a challenge beyond the scope of this paper. Research cited above suggests that certain defining characteristics of a program, including emphases on interdisciplinary and engaged learning pedagogy, as is the case with Cornell’s Global Development professional master’s degree in Global Development, enrich learning outcomes. A deeper analysis of the nature of this enrichment, and what it means for the professional effectiveness of program graduates suggests research on student engagement with values, beliefs, attitudes, and behaviors aligned with sustainability principles. This necessitates a closer examination of the practical implications of terms such as student understanding, beliefs, attitudes, and intentions.

A deeper exploration of these terms produced refined definitions. "Understanding," also referred to as Sustainability Literacy, denotes "the knowledge, skills, and mindsets enabling individuals to wholeheartedly commit to constructing a sustainable future and facilitating well-informed, effective decision-making towards this goal". "Belief" is elucidated as "governing the realm of an individual's values, state of mind, and convictions, which can be shaped by knowledge, culture, and upbringing". "Attitudes" are characterized as "the manifestation of a person's beliefs, demonstrated through actions and thoughts," while "intentions" are defined as "the mental state guiding an individual's future actions" These terms can be arranged in a linear progression, where understanding serves as the foundation for beliefs, which in turn drive the formation of attitudes, ultimately influencing an individual's intentions to act. To illustrate, a person holding a belief in

responsibility and care for others may develop concerns about climate change. Consequently, they might opt for environmentally friendly activities such as biking or recycling to reduce their carbon footprint. This belief-driven attitude may further propel them towards pursuing an environmental degree, preparing them for a future career in climate action or other development work (Tang, 2018).

Claiming positive changes in student understanding, beliefs, attitudes, and intentions to participation in professional master's degree study characterized by interdisciplinary and engaged learning related to development practice (MPS and MDP, among others) requires more evidence and extensive engagement with students and alumni across multiple institutions. . It is, however, important to consider as it lays the groundwork for future directions in research and underscores the model's potential to shape individuals into proactive contributors to sustainable development. In depth evaluation can provide important insights into the model's effectiveness in preparing thoughtful, committed and innovative development professionals. Importantly, it will inform efforts by higher education institutions to build interdisciplinarity and engaged learning partnerships more fully and strategically into professional master's curricula.

#### **4.4. Sustainability Courses at Cornell Global Development Field**

The exploration commenced by browsing and utilizing information from section of Cornell Class Roster with focus specifically on “Global Development (GDEV)”, College of Agriculture and Life Science to analyze the collection of sustainability courses available. A comprehensive list of all courses taught in spring and fall semester 2023 yearly encompassing both undergraduate and graduate-level courses. These courses were then classified into categories. Sustainability-focused courses are those that openly emphasize sustainability, showcasing a primary focus on its application within specific fields, interdisciplinary contexts, or major sustainability challenges

(Refer to Class Roster). On the other hand, sustainability-inclusive courses, while not explicitly centered on sustainability, clearly incorporate it within their content. This inclusion may be obvious as a unit or module integrating sustainability activities, challenges, issues, and concepts. To further analyze these courses, I meticulously reviewed each course description, highlighting and categorizing aspects related to the bottom-line encompassing development, social, environmental, and economic dimensions. Noteworthy terms associated with development include sustainable development, international development, poverty alleviation, gender equality and Women's empowerment, community development and environmental sustainability. Social considerations included social issues, equity and equality, political systems, ethics, culture, society, social justice, and humanities. The environmental pillar was characterized by terms such as ecology, natural systems, climate change, nature, natural resources, and ecosystem services. Economic dimensions were represented by terms like economic development, business practices, markets, consumption, economic viability, and growth.

In response to a noted shortage in interdisciplinary aspects in sustainability courses across various universities, I employed a system of measurement based on those dimensions from the descriptions. This system of measurement aimed to assess the interdisciplinary nature of sustainability courses, considering a course with representation from all four pillars as truly interdisciplinary.

#### **4.5. Examining Selected Courses**

Six graduate-level courses offered in 2023 within the Field of Global Development were selected for further assessment. The primary objective was to explore the incorporation of development and sustainable development themes within course content, with an interest in better understanding potential impacts on the outcomes for both students and practitioners. The courses selected for

analysis, outlined in the results section of this research, are among the hundreds of graduate-level courses across many Cornell departments and schools available and relevant to MPS Global Development students. All of the following examples carry the Global Development "GDVE" prefix and are taught by faculty within the Department of Global Development. They include:

- GDEV 6940 "Theories of Development".
- GDEV 6960 "Perspectives in Global Development".
- GDVE 6970 "Global Development MPS Seminars".
- GDVE 6770 "Institute of African Development Seminars".
- GDVE 6820 "Community Organization and Development Seminars".
- Gender & Development (GDEV/FGSS 3230 & GDEV 5230/5970).

The selection process purposely focused on diverse disciplines and topics, steering away from the conventional interdisciplinary courses. The rationale behind this decision rested on the assumption that students or professionals in fields of Global Development with diverse areas of specialization like education, environmental or climate change studies might naturally gravitate towards sustainability courses, thereby already holding pro-sustainable development values. Instead of measuring this demographic, the focus shifted towards students relatively new to sustainability topics.

To gather comprehensive insights, instructors of the chosen courses supplied current syllabi, forming the basis for the analysis based on the needs of and the background of mid-career professionals. Course syllabi were examined using criteria proposed by Wiek et al. (2015). Examination included a search for elements such as a clear definition of development and sustainability, statement of sustainability learning outcomes, sustainability-infused class activities, course-relevant sustainable development resources, and sustainability assessment tools. Further

examination of syllabi focused on the five sustainability competencies identified as fundamental to comprehensive sustainability education. These competencies include systems thinking, futures thinking, values thinking, strategic thinking, and collaboration. The process involved a careful review of each syllabus to identify and evaluate the combination of these competencies from course activities (Wiek et al., (2015).

## **4.6. Course Syllabi Analysis**

### **4.6.1. GDEV 6940 "Theories of Development"**

This seminar explores the contested terrain of development theory through diverse educational methods detailed by Wiek et al. (2015). The course structure incorporates close text readings, student-led discussions, reflective writing, and interactions with guest lecturers. The primary objectives are collectively focused on understanding various development theories, drawing insights from contemporary scholarship, and fostering a platform for feedback on research projects (Futures Thinking). The scope of development theory is expansive, intertwining fields and disciplines, influencing human values, power dynamics, and diverse stakeholders (Systems and Value Thinking). Two key commitments define the course: firstly, a dedication to decolonization involving discussions on methodologies and epistemologies; and secondly, an emphasis on addressing differences transparently, ethically, and productively by recognizing them as potential strengths (Collaboration and Strategic Thinking). Throughout the semester, participants collectively engage in exploring these commitments and their broader implications and final paper as an essential component of the learning process that helps students consolidate their knowledge, develop critical skills, and prepare for future academic or professional endeavors (Collaboration and Futures Thinking).

#### **4.6.2. GDEV 6960 "Perspectives in Global Development"**

The Global Development Perspectives Seminar Series syllabus, in alignment with Wiek et al. (2015) criteria, precisely outlined sustainability learning outcomes and integrated them into various class presentations throughout the series. To enhance the learning experience, a diverse set of speakers engaged students in seminars on Global Development, specifically emphasizing sustainable development worldwide. This hybrid format featured speakers both on campus and via Zoom, allowing accessibility for students, faculty, and the wider public. While the syllabus did not offer a precise sustainability definition, it incorporated its learning objectives. The initial weeks of the course concentrated on helping students to reflect upon and refine their own foundational definitions of Global Development, utilizing a system thinking approach. As the semester progressed, the curriculum extensively explored sustainability perspectives, exploring topics such as inclusive agricultural and food systems, the impact of climate change on food security, innovation for both people and the planet, and the complex balance between human development and environmental conservation. The course also tackled critical issues such as land justice, inclusivity, economic justice, and women's rights, highlighting the paramount importance of sustainability strategies in risk mitigation through futures thinking. Effective communication of sustainability to communities with diverse worldviews, grounded in values thinking, was a focal point. Additionally, the syllabus addressed governance and local business sustainability initiatives, fostering collaboration and strategic thinking among students. Throughout the course, students collaboratively developed Sustainability Management Plans, showcasing their ability to apply theoretical knowledge to practical scenarios. In core, the Perspectives in Global Development course comprehensively covered each of the competencies outlined, helping participants gain a deeper understanding of the intricate relationships between factors contributing to or impeding

development differentially across the world. Through the preparation of a final paper, seminar participants reflected upon the various presentations and describing ways in which their person concepts of development had evolved. Facilitated group discussion during the final week served to solidify students' understanding of key concepts, improve critical thinking skills, and lay the groundwork for forthcoming academic or professional pursuits (Future Thinking)

#### **4.6.3. GDVE 6970 “Global Development MPS Seminars”**

The Global Development MPS Seminars effectively addressed four out of the five criteria outlined by Wiek et al. (2015) concerning sustainability. The seminars clearly articulated sustainability learning objectives and incorporated class activities focused on sustainability through paper presentations. The availability of resources, such as library facilities and Institutional Review Board processes, supported the learning experience and prepared participants to conduct their own capstone project and research activities. The assessment tool, a rubric for both the paper and presentation, provided a structured evaluation framework. While a precise definition of sustainability was not explicitly provided, the course featured well-defined learning objectives. The curriculum covered diverse topics, including project design and methods (Systems Thinking). Participants were encouraged to identify primary interests, plan relevant coursework, and cultivate skills, theoretical understanding, and subject-matter expertise (Future and Values Thinking). A substantial portion of the course was dedicated to helping students craft plans for capstone projects, research, or problem-solving papers, fostering critical thinking in the process. Within this project, students developed a framework to analyze processes related to their chosen issue (Systems and Strategic Thinking) and evaluated solutions or actions for promoting sustainable management (Futures Thinking). In the data collection phase of field work preparation, students were required to interact professionally with relevant development specialists working on their respective issues,

promoting knowledge and idea exchange and fostering a sense of collaboration (Collaboration). The MPS Seminar also served as a platform for cohort-building and peer-to-peer learning, culminating in synthesis and reflection activities (Values Thinking). While the syllabi effectively covered each of the five competencies, collaboration appeared to be the least emphasized. Most student work on their papers was independent, with limited signs of collaboration, primarily manifesting during expert interviews conducted during project implementation. However, student presentations of draft plans for capstone projects included time for peer questions, comments, and suggestions.

#### **4.6.4. GDVE 6770 "Institute of African Development Seminars"**

The African Development Seminar Series syllabus incorporates the criteria identified by Wiek et al. (2015) and focuses on critical development issues in contemporary Africa. Each semester centers around a specific theme related to Africa, providing a platform for exploration of alternative perspectives and ideas. The syllabus lacks a precise definition of development but dedicates the initial two weeks to establishing a foundational understanding of development, focusing on topics such as "Envisioning Land, Agriculture, and Food Futures in Africa." The series delves into the future of African land, agriculture, and food, addressing growth and development obstacles and enabling factors. It explores the utilization, valuation, and habitation of land across diverse settings, employing a Systems Thinking approach. The subsequent weeks focus on considering Africa's youth perspectives on potential futures and discussing ways to create resilient, healthy, ecological, thriving, and just land, agriculture, and food systems. Emphasis is placed on the possibility of a decolonial future that values indigenous and local foodways, highlighting sustainability strategies in hazard mitigation through Value and Futures Thinking. The scholarship goals include acquiring knowledge about African development, people, cultures, and societies,

exploring development theories with alternative viewpoints specific to the theme, and exchanging ideas on various African development-related topics. Participants are expected to enhance their written and oral communication skills in synthesizing and reflecting on readings, seminars, and discussions. The syllabus encourages active engagement and critical thinking, with students being urged to pose alternative views, conduct additional readings, and submit a final paper for successful completion, aligning with values of collaboration and future thinking.

#### **4.6.5. GDVE 6820 "Community Organization and Development Seminars**

The syllabus for the Community Organization and Development Seminars addressed four of the five criteria outlined by Wiek et al. (2015). It highlighted a significant global gap between the current state of the world and the envisioned future, emphasizing that people lack the ability and influence to effectively pursue their individual and collective interests, ideals, and aspirations. This limitation on agency is attributed to either ineffective expression or powerful forces and dynamics that marginalize, silence, dehumanize, disrespect, disable, coopt, overrun, or overwhelm individuals. In some cases, these power imbalances can even pose threats to, or lead to the termination of, lives (systematic thinking). The course integrated learning objectives and community development aspects into weekly topics. The initial segment explored political community development philosophy and sustainability, addressing central questions such as how to close or minimize existing gaps, the forms of power individuals contend with, and the types of power essential for pursuing interests and aspirations in the existing world, emphasizing their cultivation, exercise, expansion, and sustenance (futures thinking).

The course methodology employed a combination of reading, writing, discussion, research, and theory-building. Collaborative efforts unfolded through three interconnected avenues: engaging in written reflections and student-led discussions on various readings; developing and critically

analyzing oral history profiles of community organizing and/or development practitioners; and constructing and critiquing situational theories of change within the field of development work (strategic and collaborative thinking).

#### **4.6.6. Gender & Development (GDEV/FGSS 3230 & GDEV 5230/5970)**

The Gender & Development course offered by Cornell's Department of Global Development offers opportunities for comprehensive exploration of the United Nations' Sustainable Development Goal 5. The syllabus, aligning with Wiek et al. (2015) criteria, establishes clear sustainability objectives and integrates references to the three pillars. Emphasizing historical feminist movements and intersectionality through theory and practice, students critically evaluate approaches to gender inequality. Case studies, readings, and reflective writing, guided by Systems Thinking, contribute to a holistic understanding. The syllabus delineates three historical gender and development movements, connecting them to feminist theories. In-class activities, reflective essays, and annotations foster Values Thinking. A significant course component involves students writing and presenting on global development, examining oppression histories and power dynamics. Discussions, utilizing Systems and Strategic Thinking, explore potential solutions for sustainable gender management through a Futures Thinking lens. Students analyze Sustainable Development Goal 5 using feminist theoretical frameworks, fostering collaboration.

The course concludes with a class on gender ethics and policies, incorporating synthesis and reflection through Values Thinking. The syllabus effectively addresses five competencies, emphasizing collaboration and engagement through peer reviews and presentations. While economic topics are less represented, they are discussed within the context of gender and development programs, ensuring a balanced evaluation of approaches to gender inequality that considers both social and economic dimensions. The unique blend of theory and practice

encourages a thorough assessment of material impacts, enhancing the students' understanding of gender and development.

#### **4.7. The MPS Capstone Project and Field Training Component**

The Master of Professional Studies (MPS) in Global Development at Cornell University incorporates a hands-on problem-solving project into its curriculum, designed to provide students with practical and technical skills tailored for roles in field-based development and development policies, especially in low-income and rural communities globally. This practical project offers students the chance to apply the knowledge and skills they've gained to address real-world challenges in development work. To be eligible, candidates must identify a specific problem based on personal experience or consultation with an organization. The project may involve tasks such as analyzing program execution, devising action plans, creating materials/methodologies for field programs, or conducting research related to a development problem. Proposed solutions should be relevant and actionable. Typically, these projects are multidisciplinary and experiential, requiring candidates to produce written reports and deliver oral presentations. Candidates can explore other Cornell courses with consultative engagement, such as the Sustainable Global Enterprise (SGE) Immersion course and Student Multidisciplinary Applied Research Team (SMART), as starting points. In group projects, individual contributions must be specified and approved by the committee. It is recommended to discuss ideas with the Academic Advisor and Director of Graduate Studies. (“Graduate Field of Global Development | CALS”)

The Independent MPS Capstone Project often involves field-based work during December/January and/or during the summer. Capstone projects are often conducted in collaboration with partner development organizations. Faculty advisors assist students with preparatory design and planning activities. Capstone projects are often complex and serve as a gateway to broadening and/or

deepening student's practical experience, and strengthening their capacity for investigation, design, project planning and implementation, analysis, and report writing. Capstone projects reflect students' individual learning objectives and professional goals. Projects span a wide range of development priorities and themes including Community Development, Human Rights, Education, Environmental Sustainability, Agriculture, Food Systems and Rural Development, Social Enterprise, Migration, Gender and Development, and Economic Development, among others. Capstone project work also aims to enhance analytical, consulting, project management, and joint skills for professional advancement (Spring 2020\_ALS 5900).

#### **4.8. Professional Report and Research Paper Option**

Candidates, guided by their professional and career aspirations, may opt to concentrate on crafting either a comprehensive and authoritative professional report or a research-based paper with explicit development relevance. The distinction between these written outputs lies more in their target audiences than in the quality or quantity of the work itself. Professional reports are tailored for specific audiences (clients) to aid in decision-making, program management, or evaluation. In contrast, research papers target a broader audience, appealing to anyone globally interested in the subject matter. Candidates must determine their chosen path to fulfill the project paper requirement early in their first semester, and the following options are elaborated upon below:

- a) Professional Report:** Some candidates may choose to elevate their analysis of past professional reports by incorporating more extensive research, data assembly and analysis, and detailed evaluation and explanation. To enhance their professional writing and analytical skills, candidates can enroll in a one-semester independent study or directed reading course with a field faculty member.

**b) Research Paper:** Other candidates may find that a research paper aligns with their interests, particularly if they have a specific concern within the broad domain of global development that warrants comprehensive yet focused research. Those opting for this route are responsible for securing a thesis advisor, preferably within the field of Global Development. It is crucial for both students and faculty to recognize that the research paper differs from a conventional MS thesis, as the MPS paper equates to 6 credits of work. If primary data collection is necessary, time and funding considerations should be taken into account. Examples of suitable topics for an MPS research paper include:

- A thorough literature review on a specific area, drawing data and material from existing literature to address the research question.
- Utilizing statistical methods for a secondary analysis of a relevant data set or developing a data set for primary analysis.
- Conducting a small-scale qualitative study to generate analytical insights into a specific research question (“Global Development MPS Handbook).

**c) Procedures and Timeline:** Candidates are encouraged to engage in discussions about paper options with their respective Academic Advisors. It is advisable to reach a tentative decision on one of the two options by the conclusion of the first semester. This decision should be integrated into the Academic Plan, which candidates prepare, have approved by their advisor, and submit to the Graduate Field Assistant by the end of the first semester of their first year. The Academic Plan is subject to modification through mutual agreement between the candidate and their advisor at any time (refer to Academic Forms on the OPPEL Canvas site). Some candidates may plan to finalize the writing of their thesis or professional report during the summer following their second semester, leading to the

receipt of their degree in August or later. Occasionally, the optimal guidance for the chosen thesis or professional report subject area may come from a faculty member not affiliated with the field of Global Development. In collaboration with their academic advisor, candidates have the option to seek approval from a faculty member outside the field to serve as their advisor for the thesis/professional report. The inclusion of subject-matter expertise is highly valued, and faculty members taking on an advisee in the field may be invited to join the Global Development field (“Global Development MPS Handbook).

## **4.9. Academic Advising**

### **4.9.1. Role of Academic Advisors**

Effective advising, mentoring, and positive, constructive relationships with faculty are perceived by graduate students as crucial elements for their success in both graduate school and the job market. The significance of fostering such positive connections is reinforced by research literature examining graduate student satisfaction, publishing rates during graduate studies, and the support provided for degree completion. Additionally, Graduate School surveys involving both current graduate students and alumni affirm the importance of these relationships. In the context of the MPS capstone project paper, the faculty advisor's role is to offer periodic guidance to the candidate regarding the scope, content, and organization of the professional report, thesis, or problem-solving paper. Their responsibility extends to ensuring the overall quality of the final project before submission. However, it is emphasized that the primary responsibility for producing an acceptable thesis or professional report lies entirely with the candidate <sup>49</sup>.

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<sup>49</sup> “*Advising Guide for Research Students: Graduate School*,” accessed November 25, 2023, <https://gradschool.cornell.edu/academic-progress/advising-guide-for-research-students-2020/>.

**a) Approval of the Project Paper:** Faculty advisors' express approval for this writing project by signing the Attestation form and assigning a grade for the 1-Credit hours ALS 5910 "MPS Project Competition." Candidates who desire an advisor from outside their field can request that this faculty member be designated as a special advisor. Alternatively, the faculty member may be supplementary to the field of Global Development, which takes some time. Students' advisors must approve the project paper, necessitating additional time between the completion of the draft and final approval to accommodate any necessary revisions or polishing. While the advisor bears the primary responsibility for overseeing and endorsing the project paper, student should keep their academic advisor informed about the project's timeline and content. To receive adequate and prompt feedback from faculty overseeing an MPS project paper, drafts should be submitted to advisors at least two weeks before the material's submission deadline for reading and commentary. It is essential to coordinate draft submission schedules with the advisor in advance. Research papers and professional reports that do not meet acceptable standards in both presentation and substance may not be approved in time for the anticipated degree conferral if insufficient time is allowed for feedback ("Global Development MPS Handbook).

## **4.10. Expectations of Faculty/Advisors and Student**

### **4.10.1. Faculty/Advisors**

Faculty/advisors are expected to adhere to the following guidelines to ensure students' successful completion of the Master of Professional Studies (MPS) program and Global Development (GDEV) requirements for graduation:

**a) Regular Meetings:** Advisors must conduct at least four meetings per semester with students to assess progress and discuss class selection, with the first meeting scheduled by

the end of September. Meeting summaries should be sent to the graduates' field assistant for comprehensive record-keeping.

- b) Academic Outline Development:** Students are required to submit a timeline of milestones by the end of September in their initial semester. This timeline should cover the selection of an advisor and the process of writing a project paper. Plans may be adjusted as needed and should be confirmed at least once a semester, with updates sent to the graduates' field assistant for documentation.
- c) Supervising Project Paper Credits (ALS 5900):** Advisors can permit students to take **1-5 credits** per semester for Project Paper Research, with a maximum of **5 credits** counting toward the degree. Advisors set explicit requirements based on discussions with students at the beginning or just before the semester of work. Some documentation of progress, such as an outline or literature review, should be provided by the advisee. Grades must be awarded in the semester the credits are taken (ALS 5900 Project Development: CALS Professional Master's Programs).
- d) Completion Project Paper Credit (ALS 5910):** Students planning to graduate must enroll in one credit of ALS 5910 in the term they intend to confer. If courses are completed by August but graduation is planned for December, enrollment in ALS 5910 during the Summer Term with an Incomplete grade is required. The Incomplete grade is updated to a Letter grade once the project is completed in the Fall term. An advisor must be designated by Fall Break (ALS 5910\_Project Completion: CALS Professional Master's Programs).
- e) Project Paper Deadlines**
  - Four-to-five-page outline/prospectus completion by the end of the first semester.

- First draft completion, based on advisor agreement, by the end of Spring Break for May degrees, mid-July for August degrees follow by December degrees. An email acknowledging completion or an expected date should be sent to the graduates' field assistant.

#### **4.10.2. Students**

To qualify for degree conferral, students must adhere to the following procedures: Firstly, they are required to select an advisor who will provide guidance throughout the degree completion process. Subsequently, students must complete the application to graduate, accessible on the OPPEL Canvas site, and submit the filled-out form, along with an updated Student Academic Plan, to both the Graduates' Field Assistant (GFA) and OPPEL. As a part of the degree requirements, students need to finalize a project paper, ensuring it is reviewed and approved by the advisor. The advisor's endorsement on the Attestation Form is mandatory. Finally, students must submit a PDF version of the capstone and Ferpa (ecommons) form to OPPEL for the culmination of the degree process. (“Global Development MPS Handbook).

#### **4.11. Directors of Graduate Studies and the Graduate Field Assistant responsibilities**

At Cornell University, the roles of the Director of Graduate Studies (DGS) and the Graduate Field Assistant (GFA) are well-defined and crucial for the smooth operation of the graduate education system. The DGS, appointed by faculty members, is responsible for representing the Graduate School, overseeing academic priorities, resource allocation, and ensuring the well-being of graduate students. They manage the admissions process and serve as the main link between the field and the Graduate School. On the other hand, the GFA provides vital administrative support to the DGS, acting as a liaison between students and faculty. They handle various administrative tasks related to admissions, orientation, advising, and records administration. The GFA's ability to

independently manage multiple responsibilities is essential for enhancing communication and efficiency in the graduate education system. Before the course selection phase, an orientation session is conducted, and a mandatory weekly seminar for Master of Professional Studies (MPS) students is organized by the DGS. The seminar aims to familiarize students with Cornell's facilities, resources, and requirements, promote interaction among students, assist in formulating project proposals, and provide guidance on expectations for MPS project papers in the second semester..("Finding Administrative Help : Graduate School").

#### **4.12. Significance of the Project for Implementing Sustainable Development Goals**

It is expected that the client, for whom the development plan was prepared, will implement it by executing the project for the community. This provides a means of achieving the SDGs since community development projects are geared towards improving different aspects of socio-economic life including education, health, economic empowerment, infrastructural facilities, etc. They are focused not only on physical infrastructure but also on facilitating human development through opportunities for interactions, sharing of ideas and information and developing initiatives for societal wellbeing. In this sense, community development projects promote sustainable development through proper application of existing resources to safeguard the environment and to develop the peoples' ability to lead meaningful socio-economic lives <sup>50</sup>.

#### **4.13. Benefits of the Program for Advancing Sustainability through Experiential Learning**

Integration of interdisciplinary and engaged learning into professional master's degree training improves the career readiness for early career development professionals, and improves career mobility for mid-career program participants. professionals. The Cornell Global Development

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<sup>50</sup> Antonio Sianes et al., "Impact of the Sustainable Development Goals on the Academic Research Agenda. A Scientometric Analysis," ed. Stefano Ghinoi, *PLOS ONE* 17, no. 3 (March 17, 2022): e0265409, <https://doi.org/10.1371/journal.pone.0265409>.

Practice is structured in such a way as to fulfill the goal of learning while advancing sustainability. In particular, the field training component inculcates experiential learning by exposing students to real life sustainable development issues and providing them with guidance to develop solutions. The experience empowers students to be sustainability change agents in various areas of professional practice.

#### **4.14. Reasoning**

The above analysis considers the Cornell Global Development Practice program and how it has played a role in advancing sustainable development globally. The paper traced the origins and evolution of the program, a program with a track record of preparing global development professionals for innovative practice and thought leadership. Admission to Cornell's MPS-Global Development program has required prior professional experience since its inception. Cohorts of early and mid-career development professionals build upon existing knowledge and skill, and previous experience through graduate coursework, peer exchange, and capstone project work. The program has a reputation for preparing global development practitioners who are properly equipped – in terms of knowledge, skill, and experience – to envision and plan actionable strategies for managing the various challenges of sustainable development.

*"The future belongs to those who believe in the beauty of their dreams."  
- Eleanor Roosevelt*

## **CHAPTER FIVE**

### **Findings, Discussion, Limitations, Recommendations and Conclusions**

#### **5.1. Discussion**

The landscape of Sustainability Education within Higher Education Institutions is intricate and continuously changing, lacking a rigid framework, thus granting universities the flexibility to design unique programs tailored to their specific requirements. This study delves into the ongoing endeavors of the Masters of Professional Studies in Global Development at Cornell University, with the objective of assessing and enhancing Interdisciplinary Education and Engaged Learning in sustainability education, as explicated in the subsequent sections. The initial exploration focuses on elucidating key findings resulting from comprehensive research, with a spotlight on the course catalog, analysis of syllabi, and understanding of beliefs, attitudes, and intentions. Subsequently, the presentation addresses the limitations encountered during the research process. Concluding the discourse, I leverage the insights derived from my research to propose recommendations, outlining a strategic path for the Masters of Professional Studies, at Global Development to enhance and expand its sustainability curricula.

#### **5.2. Finding**

##### **5.2.1. Syllabus Assessment and Analysis**

To explore the substance of the courses, I examined the syllabi for both spring and fall 2023 offerings of Six courses: These courses encompassed GDEV 6940 "Theories of Development," GDEV 6960 "Perspectives in Global Development," GDVE 6970 "Global Development MPS Seminars," GDVE 6770 "Institute of African Development Seminars," GDVE 6820 "Community

Organization and Development Seminars for Graduate level, and Gender & Development (GDEV/FGSS 3230 & GDEV 5230/5970) as a combination of both undergraduates and graduate levels. Interestingly, each course aligned with one of the three sustainability pillars (economic, ecological, and social), yet managed to integrate aspects from each dimension successfully. Sustainability was evidently fixed in the learning objectives, course activities, resources, and assessment tools across all six syllabi. While one syllabus explicitly defined sustainability, others referred to the three pillars and outlined how sustainability topics would be explored throughout the course. Notably, the absence of a sustainability definition might not indicate a shortage, but it's captivating that all syllabi included definitions in different contexts.

The five competencies (Systems Thinking, Futures Thinking, Values Thinking, Strategic Thinking, and Collaboration) were consistently present in each course. Systems and Futures Thinking were prominently emphasized across all six courses. Although each competency was mentioned, certain competencies received more extensive coverage than others. The concept of "mastery" of sustainability competencies was framed in three levels: novice, intermediate, and advanced. The undergraduate level corresponded to the "intermediate" level in Wiek et al.'s framework, with specific objectives outlined for achieving mastery in each competency. However, assessing "mastery" solely based on syllabi proved challenging. Some class activities aligned with a few "mastery" objectives, while some competencies were only addressed once or listed under the "novice" level. Collaboration, for instance, was active in weekly discussion forums, covering general interpersonal concepts and peer mentoring but fell short of intermediate criteria like engaging with stakeholders or incorporating stakeholder input into problem-solving activities. It's conceivable that these topics were addressed in other course components, with some evidence found in the Sustainability syllabus.

This design continued across all competencies in every course, illustrating the details of the Sustainability Competencies framework. Rather than serving as an assessment tool, these competencies could be more effectively utilized as objectives when designing curricula. A standardized framework, such as Sustainability Competencies, could aid in curriculum development and serve as an assessment tool. Using them as an assessing tool in this context may not be fair due to a lack of some information. Instead, acknowledging the presence of these competencies in courses provides insight into how to address diverse sustainability issues and challenges students to grapple with these complexities.

### **5.2.2. Limitations of the Cornell Global Development Practice (CGDP) Model**

The Cornell Global Development Practice (CGDP) model represents an interdisciplinary strategy aimed at confronting the complex challenges of global development. Despite offering numerous advantages, the model grapples with several challenges and limitations that warrant consideration. The complexity of global development issues positions a significant obstacle. These challenges encompass a web of interconnected economic, social, political, and environmental factors. The CGDP model activities to tackle this complexity through interdisciplinary methods. Nevertheless, fully integrating and synthesizing knowledge from diverse fields proves challenging, potentially limiting the model's ability to comprehensively address these complex challenges.

The CGDP model, like any specific approach, shows a distinct focus and characteristic limitations. While it provides a comprehensive framework for comprehending and addressing development challenges, it may not encompass all sides of global development. The effectiveness of the model can fluctuate based on the specific context and the nature of the development issue at hand.

The translation of theoretical frameworks into effective action introduces another challenge. Implementation hurdles may emerge due to factors such as resource constraints, institutional

barriers, political resistance, and capacity limitations in different contexts. Successful application necessitates skilled practitioners, supportive policies, and strong partnerships, elements that may not always be readily available.

The model's context specificity becomes apparent. Development challenges vary across countries, regions, and communities, demanding adaptability and customization for effectiveness in diverse settings. This process can be resource-intensive and time-consuming, posing additional challenges to the model's applicability.

Data and information gaps further complicate matters. Development practice relies on accurate and up-to-date data for evidence-based decision-making, yet limited availability and quality in many developing countries and marginalized communities pose challenges. The CGDP model may struggle with accessing reliable data and conducting rigorous analysis, impacting the accuracy and effectiveness of its recommendations.

Addressing power dynamics and inequality constitutes an ongoing challenge for the model. Development challenges often stem from power imbalances, inequality, and social injustice. While the CGDP model aims to tackle these issues, limitations in effectively addressing underlying structural and systemic factors persist. Overcoming power dynamics and ensuring inclusive decision-making processes remain crucial aspects for the model to navigate.

External influences and geopolitical considerations introduce additional complexities. Development efforts can be influenced by factors such as geopolitical interests, international policies, and global economic trends. The CGDP model may need to contend with these external influences, which can at times hinder or distort development initiatives. Balancing local priorities with global dynamics presents a complex task requiring careful navigation.

In conclusion, while the CGDP model offers a valuable framework for understanding and addressing global development challenges, recognizing its limitations and adapting it to specific contexts is imperative. Successful implementation necessitates addressing complexities, incorporating diverse perspectives, leveraging available data, and navigating power dynamics to create meaningful and sustainable change.

### **5.2.3. Recommendations for Improvement and Future Directions of the CGDP Model**

The Cornell Global Development Practice (CGDP) model stands as a robust foundation for addressing global development challenges, yet there exists ample opportunity for its refinement and expansion.

One avenue for enhancement lies in the integration of emerging technologies to bolster data collection, analysis, and decision-making processes, thereby increasing the efficacy of development interventions. Additionally, the model could intensify its focus on climate change and environmental sustainability, incorporating strategies for adaptation and mitigation, sustainable resource management, and addressing the socio-economic ramifications of environmental changes. Furthermore, a deeper commitment to gender equality and social inclusion is recommended, advocating for gender mainstreaming approaches and inclusive decision-making processes to better address the needs of women and marginalized groups.

The CGDP model could also emphasize the importance of partnerships and collaboration across sectors, fostering knowledge sharing, resource mobilization, and collective action. As urbanization accelerates, attention to urban development challenges, inclusive planning, affordable housing, and sustainable infrastructure becomes imperative for the model's relevance. Strengthening monitoring, evaluation, and learning components is essential for accountability and continuous improvement, enabling practitioners to refine their approaches based on evidence and feedback.

Moreover, ethical considerations and social impact assessments should be integrated into the model, ensuring the protection of human rights and promoting ethical practices.

By embracing these suggested areas for improvement, the CGDP model can adapt to the evolving global development landscape, ensuring its effectiveness in fostering sustainable and inclusive development.

#### **5.2.4. Conclusion**

In light of the increasing urgency surrounding global sustainability challenges, it is imperative to emphasize interdisciplinary education and engaged learning as essential components for preparing sustainable development professionals. These individuals must be equipped to navigate complex issues both in their professional capacities and personal lives within the framework of the Cornell University focusing on MPS in Global Development program.

The current landscape of sustainability education at Cornell Global Development is undergoing significant evolution, presenting a timely opportunity for active participation. Recognizing sustainability as a Core Value of the University, recent years have seen the introduction of educational initiatives on this front. Despite this positive route, the existing scenario remains predominantly discipline-specific, characterized by fragmented efforts.

Cornell Global Development, College of Agriculture and life Science of Cornell University finds itself at a crucial juncture where it has the potential to consolidate sustainability teachings campus-wide, establishing a comprehensive educational program that transcends disciplinary boundaries. To realize this vision, I propose that Cornell University initiates a collaborative, interdisciplinary effort, potentially through addressing deep-rooted social inequalities through expertise in agriculture, Global Health, community well-being, education and more serving as platforms for

the design and implementation of sustainability frameworks, the creation of teaching tools, and the establishment of a standardized metric for assessing the content of these courses.

This approach ensures equitable access to sustainability education for students and practitioners across campus, fostering an inclusive learning environment. Moreover, the implementation of a common metric will enable the university to effectively measure and track progress in sustainability education, providing valuable insights for future enhancements.

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